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CULTIVATION OF RUTA BAGAS AND TURNIPS.

Colsa *(Brassica campestris)* is found apparently wild in Lapland, Spain, the Crimea, and other parts of Europe. Unlike the cabbage, *(B. oleracea.)* it does not appear to be a maratime plant. In its natural state it has a slender root, and an upright, smooth, branching stem, not much exceeding two feet in height. The ruta baga, or Swedish turnip, is supposed by De Candolle to be a variety of *B. campestris*, analogous to *Kohl rabi* among cabbages, but with the root swollen instead of the stem. It was introduced from Sweden into England about the end of the last century, and has always preserved its distinctive characteristics, except when crossed by the common turnip. In its original pure condition, it is a flattish, globular root, with a very fine tail, a narrow neck, and a hard, deep yellow flesh, capable of resisting a much greater degree of cold than the common turnip.

Fig. 1.

There are at the present time eleven varieties of ruta bagas commonly cultivated in Great Britain. We here present engravings of three of the best of them. *The Common Purple-top Swede*, (fig. 1,) is one of the oldest varieties. It is very solid in texture, hardy, and not apt to run to seed. It grows deep in the ground, and requires a black or loamy soil, of considerable depth. *Skirving's Improved Purple top Swede*, (fig. 2,) was originated by Mr. William Skirving, of Liverpool. It is a very popular variety in England, and has been extensively introduced into this country. It differs from the former in the more oblong shape of the bulb, having a longer neck, and standing more out of the ground.

Fig. 2.

It is also more liable to run to seed in the fall,—a very great drawback in this country. It also contains, according to an analysis made by the writer at Rothamstead, *less dry matter* than any other variety of ruta bagas we are acquainted with. In fact, fifteen tons of the common ruta baga contained as much nutritious matter as twenty tons of this improved variety. On the other hand, it is a very free grower, comes early to maturity, and keeps well when stored. It is a good variety to sow on thin soils and on hard clays, because of the slight hold it requires of the ground. *Laing's Improved Purple-top Swede* (fig. 3) differs, according to Lawson, "from all hitherto known varieties of Swedish turnips, in having entire cabbage-like leaves, which, by their horizontal growth, form a thick covering to the soil, thereby materially checking the vigor of autumnal weeds." In point of shape, hardiness and quality, it is superior to all other varieties. It grows late in the autumn, and is not suited to a climate where winter sets in early. It has little or no tendency to run to seed in the fall, and even in the spring, when set out for seed, it is a fortnight later in commencing this function than any other variety of ruta baga. It requires good land, in high condition, and

Fig. 3.

under such circumstances as have been mentioned, its cultivation is strongly to be recommended.

An eminent Scotch writer well observes:

"The introduction of the turnip to field cultivation, is undoubtedly one of the most important events that has occurred in the history of British agriculture. Had the turnip still continued to be what it originally was—a mere garden plant, cultivated only for culinary purposes—it is no exaggeration to say that Britain would not now have occupied the high position she now enjoys among the nations of the earth, whether as regards agriculture or commerce. Without the turnip, rotation of crops would have been still limited to weedy corn [grain] and foul pastures; the production of butcher meat would have depended on pasturage, and consequently the great mass of the population must still have been condemned to a farinaceous diet or salted rations in winter. The cultivation of the potato would have increased to such an extent, that the whole of Britain must now have been what Ireland lately was. In Scotland, especially, has the introduction of turnip cultivation shown how vast are the changes which spring from apparently trivial causes."

We quote the above remarks, for the purpose of showing the value placed upon the turnip in Great Britain. On all the light soils of England, one-fourth of the arable land is annually sown with ruta bagas and turnips. We are well aware that the climate of this country is not so well adapted to the growth of root crops; but it is certain that we might cultivate them to a greater extent with advantage. We believe that as large crops have been grown here and in Canada as in England. As a general rule here, farmers sow a little turnip seed, and leave the plants to take care of themselves. If they escape the attacks of the fly, and produce a few fair bulbs, well; if not, no matter. In England, on the other hand, more labor and expense is bestowed on the cultivation of turnips than on any other crop. We have known fifty dollars an acre expended in the cultivation and manuring of a crop of ruta bagas; and twenty dollars is a low average estimate. Morton's *Cyclopedia of Agriculture* estimates the "total expense of growing an acre of turnips" on a "large class of medium turnip soils, in average condition as to cleanliness," at £8.5.2 per acre (say $40). In East Lothian, the same authority estimates the cost at £10.3.6 (say $50). "*Does it pay*," we hear our readers ask, "to expend so much money and labor on a single crop?" We believe it does not pay, *directly*. In other words, the turnips cost more than they are worth as food for stock. But, *indirectly*, turnip culture is undoubtedly very profitable. An English farmer, of great experience, once said to us, "Insure me a good crop of turnips, and I will insure you good crops of everything else in the rotation." In popular language, *turnips draw largely on the atmosphere for their food*; and, when grown and consumed on the farm, furnish a large quantity of manure of great value for the cereal crops which follow. Then, again, turnips are a "fallow crop." If they were not grown, the land would have to be fallowed, in order to destroy the weeds and prepare it for wheat. In considering the economy of turnip culture, therefore, we must not charge the whole expense of cleaning and preparing the land to this crop, as much of the cultivation would be needed if turnips were left out of the rotation. Neither is it right to estimate the crop as worth only the value of the beef, mutton and wool which its consumption by cattle and sheep produces, without taking into consideration the value of the manure left on the farm. According to such an estimate, turnip culture in England would be a losing business; but taking all things into consideration, it will be found not only profitable, but, with our present knowledge, absolutely indispensable to good agriculture.

We admit that our climate is not as well adapted to the growth of root crops as that of the British Isles, but at the same time we think no one will contend that if we took as much pains in manuring, and cultivated as highly as the English farmers, we could not grow fine crops of mangel wurzel, ruta bagas and turnips. These roots *must have* good cultivation, and *plenty of room*. They are generally left too thick. Fair crops of turnips and ruta bagas are sometimes obtained in very favorable seasons by scattering the seed broadcast on clean land; but as a general rule such treatment must inevitably result in failure. It is an old saying, "slovenly farmers get good crops once in seven years," but during the other six—with root crops especially—their experience is anything but satisfactory. It requires more labor, but it will, in nine cases out of ten, *pay better* to sow in drills two to two and a half feet apart, and thin out with the hoe one foot apart in the rows, than to sow broadcast.

We have received quite a number of communications on the cultivation of root crops, and cannot conclude this article better than by giving a few extracts.

Mr. F. Bowen, of North Boston, N. Y., says, "Turnips should be sown on a deep, rich soil, broadcast, and harrowed in. They may be sown any time in July, but best about the first or second week. Ruta bagas can be sown in June, in rows two feet apart, and twelve to fourteen inches in the row. There is no crop a farmer can raise which yields so much food for his stock, or is so well adapted to the climate."

Mr. James L. Thain, of Lake Co., Ill., well observes: "The cultivation of root crops is one of the most important items of stock raising. The land designed for ruta bagas should be plowed in the fall, so that the ground will be mellow, and the stubble and manure well rotted, unless they are to be manured in the drill, which is far the best, as the roots come in more immediate contact with their food. If manure is put into the drill it must be well rotted. Having the land prepared smooth and of fine tilth, commence running the drills twenty-eight inches apart, opening them with two furrow; then spread the manure up the open furrows; close them with two furrows, thereby leaving a crease on top for the seed. If not provided with a seed drill, take a tin tube one foot long and one and a half inch across; bore some holes in the bottom; tie a rod three feet long to it; take the rod in your hand and walk at a good pace, shaking it as you go along; then take a roller and pass over the rows once. The quantity of seed required to the acre is one and a half pounds. Some think one pound is sufficient, but we must make allowance for the fly and bad seed. The best time to sow them is from the 20th of May to the first of June. Some object to sowing them so early, but when they are sown late they do not come up as well—the ground getting so dry. Another thing, the fly hurts them more, and if sown later they cannot be properly taken

care of before harvest, as they need to be hoed twice; the first time when they are in the first leaf, thinning them out to nine inches, the second time to clear them of any weeds that may be among them. A narrow cultivator or shovel plow can be run through the rows, which, if straight, allow you to go very near the plants, thereby leaving little for the hoe to do. A man can hoe one-third of an acre the first, and one acre the second hoeing."

A Canadian correspondent who cultivated twenty acres of ruta bagas last year, and who intends sowing thirty acres this year adopts the following method: "I plow the land in the fall very deep, thinking it important to stir some of the subsoil. During the winter draw manure into the field and put it in a round heap, with a flat surface to catch all the rain. As soon as the ground is in working condition in the spring, plow again; work down fine with cultivator and harrow, and about the first week of June commence ridging twenty-eight inches apart; fill the ridges with good rotten dung; then split your rows to cover the dung; roll down with a light roller, and from the 10th to the 20th of June drill in about a pound of seed per acre. Skirving's or Laing's improved are excellent varieties. Last year I tried a new kind called Marshalls, which is very good.

"When the plants are nicely in rough leaf go through them with scuffler or horse hoe; then hand hoe, leaving the plants twelve inches distant from each other—if the ground is very rich a little more. When the plants have got a little hold of the ground scuffle again, and go over them with the hand hoe, cutting out all weeds and double turnips. I consider turnips and ruta bagas the most profitable crop the farmer can raise."

Mr. MYRON E. TANNER, of Clarkstown, Rockland Co., N. Y., says: "For raising ruta bagas, after breaking up your land, ridge it and let it lie so for a while; then run a deep furrow through the center of each ridge and fill it with fine manure, after which cover it slightly with earth and sow your seed. Keep your land well worked between the rows, and when the tops are large enough so that they are out of the way of the flies, thin them out to about eight or ten inches in the rows."

ITEMS SUGGESTED BY THE MAY NUMBER.

MAY-DAY is here, but the *Farmer* was one day in advance, ready for the leisure given by a stormy afternoon for its perusal. And it has been some compensation for the delay in the work, to see the grass grow greener beneath the rain, and to get some suggestive ideas from our worthy farmer's club—for your journal, with its host of practical farmer correspondents, is better than any farmer's club ever yet organized.

ROTATION OF CROPS.—Some ideas contained in the leader are new to me. I accept them, thankfully. Circumstances must guide the *thinking* farmer in the course to be pursued; and if he has a clear idea of the principles on which crops should rotate, he can act intelligently in the matter, and give that rotation best and most convenient. Now, I meant to have grown clover after wheat, but the seeding failed from extreme drouth, so I shall apply barn-yard manure and plant corn and potatoes, and seed again to clover on barley next spring. This "leaves over" a green sward one year longer than intended, and I shall try, if possible, fall manuring, to be plowed under for corn next season, as recommended by Mr. JOHNSTON and Prof. VOECKLER.

CROW-SCARERS.—The application of sulphur to the hills of corn is a new notion—we find coating the seed with tar effectual. Place your seed in some convenient vessel—we use an old half bushel—put in good tar, enough, when stirred with the corn, to coat thinly each kernel, then add a handful of plaster, stirring again until the corn does not stick together. I am sorry to say, that last year it did not keep red squirrels from digging up out corn.

BEAN FODDER.—Perhaps, if cured in the way Mr. SAMPSON recommends, bean straw would not be worth over $2 per acre, but good bean fodder is worth three times that sum. I value it equal to common hay for sheep, and other stock can be learned to eat it readily.

PARSNEPS AS A FIELD CROP.—I join in Mr. HAYWARD'S recommendation of this root for stock. It can be raised with as little trouble as any other, and the keeping in winter is much easier and safer.

MANAGEMENT OF MANURE.—To keep the *strength* of the manure, as Mr. HOUGHTON says, is the great object with the farmer, and to prevent *fermentation above ground* will accomplish this. This "prize essay" is worth a dollar to any farmer who will put its recommendations into practice.

ASHES AS A MANURE.—The value of ashes for applying to all crops on dry land, is not overstated by Mr. RANDALL. Selling ashes for ten cents or less a bushel, is getting a very little money for what, applied to the crops, would bring a much larger return. Mr. R. got eight bushels of potatoes, extra, from the use of one bushel of ashes. I have done as well—and have found them of much benefit to corn, grass, and grain crops.

SUBSOIL PLOWING.—Ought not draining to precede subsoil plowing on such clay and hard-pan lands as the writer of the prize essay on this subject describes? The subsoil, when loosened up, would soon become saturated with water, which, without drainage, would find no better outlet than before, and hence pass off by evaporation. First *drain*, and then *deepen*, and the character of the soil will be changed from compact and retentive to friable and quickly drying, and yet keeping sufficient moisture for the uses of the crop.

A FARMER'S GARDEN.—Every farmer should have a garden—one receiving, and therefore worth, some attention. They are too often neglected, to the great loss of the family—for garden vegetables are necessary to perfect health in summer, and a great luxury besides.

PLUMS AND THE CURCULIO.—Dare we hope to eat our plums again? Not many years since we raised fine ones, by the bushel; but first came the curculio, and then the black knot, and not a tree is left alive. N. D. C. encourages us to try again, and we will do so.

MY FIRST DAHLIA.—This was grown some six or eight years since, from a root transplanted the 4th of July, and I thought it a fine one. My last dahlias were only buds, and for three years I have had them cut off by early frosts. So I saved no roots last year. B.

Niagara Co., N. Y.

NOTES FOR THE MONTH, BY S. W.

ALL THAT IS CHANGED NOW.—To day, the 7th of May, the canal has been open two days here, and not a single loaded boat has passed our locks. Twenty years ago, the day before the opening, our village was enlivened by the coming sound of the Kent bugle and the boatsman's horn, sent forth from scores of boats loaded to their utmost capacity on deck and below with wheat, flour, pork, whiskey, &c., &c., the rich products of Seneca, Ontario, Yates, Steuben and Tompkins; but up to this time there are no arrivals in our canal from Geneva and the lake ports above; while more than twenty freightless boats that wintered here, now line our basins, sighing aloud for employment; the dry dock is also full of boats, so tardily repairing that the music of the caulking mallets is no longer heard in full accompaniment as af old.

Wheat was formerly the great paying staple of the farmer of this reigon, but the continued deterioration of the crop as the soil gave up its wheat pabulum, succeeded by the midge, has induced farmers to reduce their wheat fallows to the smallest compass. This is the main cause of the failure of our canal exports; but the competition of the rail roads have also contributed very largely to the result. Now instead of large accumulations of pork, whiskey, manufactured articles, &c., during winter, to be forwarded by canal at the opening, all now goes in the winter by rail road. Several hundred barrels of whiskey alone are forwarded by rail road weekly from this place, from the close to the opening of the canals, to say nothing of the thousands of live hogs, slaughtered carcasses, &c., &c.; so that most of our boats of late years have to go to Oswego and Buffalo for that employment which formerly at this season of the year was pressed upon them at high rates of freight.

But those of our farmers who have not too recklessly impoverished their farms, never made money faster by the products of their industry than at this time. Many who grew two hundred bushels of potatoes to the acre last season, are now selling them at one dollar a bushel. Hay, which was not a short crop on well treated meadows, has been sold at from $15 to $20 the ton; and beef, pork, butter and cheese at almost fabulous prices. Suffice it to say that very blue veal sells at 10c. a pound in our market, and the best pieces from poor beef at 14c. the pound. When will farmers learn that it costs double to make the same weight of skin, bone and lean flesh, than it does to make fat or carbonaceous matter?

PLANTING POTATOES IN JUNE—EARLY AND LATE CORN.—An Iowa correspondent of the *Farmer* says, that late planted potatoes "bring the best crops," and that the early varieties planted as late as the 20th of June do well in Iowa. It may do for those who are blessed with a deep, porous, absorbent vegetable soil in the virgin west to follow such advice, but we who live on the calcareous soils of western New York, where the original vegetable matter has been long since worn out, should by all means plant potatoes early, that they may get their growth of stems and leaves before the trying droughts of summer overtakes them. June planted potatoes in our region can only do well in cold, wet seasons. Corn also should be planted early so that its cereal product only has to be made in a drouth. I have always noticed that corn which has not perfected its stalks before the drouths of July and August have commenced, is invariably a short crop; but although potatoes grow in the fall months and perfect tubers, corn comes to a stand still as soon as the cool nights of September commence. Frost, as much as some behind-hand farmers may dread it, rarely ever injures corn that would have ripened had the frost kept off until December.

THE EMIGRATION TO KANSAS.—A lady writing from near Ossawatamie, says that they were two nights and three days going about seventy miles with a light wagon load of traps, drawn by six mules with a colored boy driver; part of the way good roads over dry prairie, and *comme ca* hotels by the way; then sloughs, muddy and deep, through which they had to have the aid of oxen; then the steep banked, bridgeless creeks, into one of which she and her trunks and band box were precipitated from the top of the load. They saw some coarsely dressed men who looked like border ruffians, but they only grumbled at the Yankee crusade as they quietly passed by. When stuck fast in a slough, some Missourians passed them by like the priest and Levite of old, when lots of Yankee wayfarers immediately came to their aid. The Missourians doubtless reserved their sympathy for their own border clan. Near Ossawatamie they went into their brothers' unchincked hackberry log house, but in two days the howling prairie north-wester was chinked and daubed out; they got a board for a table, set up the cook stove, and began to live with that best of Kansas sauce, a good appetite. They then bought an adjoining claim of a Hoosier, sat out currant bushes and made a garden; when the Hoosier rued his bargain and would have his claim back.—The great advent of live Yankees with their pockets full of money now bidding over each other for claims, quite turned his head, and set his honor and honesty adrift. Not another claim to be had in many miles for less than $400, add the government price to this and then the betterments, and you have a new farm at old prices. But here you can relish hog and hominy, wear your old clothes, and laugh at the latest fashions; laugh at or ignore fever and ague until it comes, then shake and bear it.

THE SEASON.—April has been a cold, snowy month for the season, and the present month, May, has been very wet to the 6th; but the long warm rain has brought the grass forward very fast, and to day, the 7th, is warm and very growing weather. Peas planted 26th of April on a heavy soil are up and ready to hoe; even a well underdrained soil if heavy, needs two days dry weather after such soaking rains, before it is fit to move with the hoe. I shall plant a few rows of Sorghum and King Philip corn, if warm and dry, to-morrow.

Waterloo, N. Y.

A PROPOSED ROTATION.

MESSRS. EDITORS:—Allow me to propose the following "four-course rotation," through your columns, for the consideration of farmers of Western New York. It has no particular claims to originality, though, in one respect, it differs slightly from the usual practice, and looks to a decreased attention to the wheat crop, once our great staple product:

1. Corn, on green sward, with the bulk of the winter's manure.

2. Barley, land fall-plowed, sowed after harrowing in the spring.

3. Wheat, with composted manure, rye the spring

following, beans on any stubble unused for these; the whole seeded to clover or herd's grass.

4. Pasture and meadow, three or more years.

The crops of the first and second years are those now commonly employed. For corn, apply twenty or thirty loads of barn-yard manure per acre, plow it under eight inches deep, roll and harrow, plant in May, and give clean culture.

For barley, plow the corn stubble late in the fall, attend to perfect surface drainage, harrow and sow as early in April as may be, roll after sowing and harrowing in. Green manure applied to corn and plowed under, as above recommended, reserves a portion of its strength for the next crop—the barley needs and will find the same.

For wheat, the barley comes off in ample time for preparing thoroughly. To the stubble intended for and best suited to this crop, apply fifteen or twenty loads of decomposed manure per acre, plow lightly, and sow early in September. With good seed, of some early maturing variety, the crop will be less liable to injury from the wheat midge, and a rapid growth, from good soil, is stronger to resist the attacks of any enemy.

Rye may be sown on the lighter portion of the barley stubble, when the land is of varying character. Sow by the middle of September. In the spring, seed both the rye and wheat ground to grass, with a mixture of clover and timothy, and dress with plaster, at least one bushel per acre. Do not fail in this application, if you would secure a "good catch" of your grass seed.

If any portion of land remain unused for these crops, some would sow to oats, and seed down; but we would plant to beans early in June, and after harvesting them, use the gang plow, harrow, and sow on our grass seed, following with the roller. The earlier this is done the better, and a dressing of plaster should be given as soon as the grass appears above ground.

We have spoken of sowing mixed grass and clover. We think it better for pasture, also for hay; and if circumstances should make it advisable to let the land lie in grass more than two or three years, the perennial grass will fill the space left by the death of the clover.

This course is marked out with the fact that less wheat must be sown, in view, and proposes to substitute corn and barley as the staple crops in their stead. We must have more corn, and *feed it upon the farm*, that we may have plenty of manure—we want barley to bring us the ready cash. Some wheat is a necessity, so let us select our most favorable soils, and give it our best preparation. We shall find rye a valuable crop for feeding stock and swine, while beans pay well, but require considerable labor; and the three—wheat, rye and beans—will about fill up the acres we wish for corn and also barley, as single crops each year.

It will be seen that the size of the corn-field depends on the amount of the manure, or should do so, and that of the barley also. To carry this course out, would require at least eight fields fit for the corn crop, of which three would be in grass each year. This would allow the keeping of a due proportion of stock, with proper attention to corn fodder, straw and roots, and the use of the corn for fattening beef, pork and mutton during the winter.

Brother farmers, what think you of this? Please write out your comments for the pages of "our paper!"

J. H. B.

ON THE ADVANTAGES OF STIRRING THE SOIL IN DRY WEATHER.

[We have received several excellent communications on this subject, and think our readers will be interested in a few extracts.]—Eds.

I have known instances where a narrow strip has been left unbroken in a summer-fallow during a dry summer, and after harvest it was all cross-plowed together. The unbroken strip would appear almost destitute of moisture, while that which was plowed and frequently *stirred* with the harrow or cultivator exhibited quite a contrast.

It is the common experience of farmers, that wheat sown in a dry fall upon fallow ground is much more liable to come up well, than when sown on stubble.

Again, in hoeing corn in very hot weather, when you could fairly *see* the corn grow, upon leaving the field at night I have measured some hills that were hoed and some that were not, and the next night compared their growth during the twenty-four hours.—The result was that the hoed had made about twice the growth of the unhoed.

Two years ago last summer I planted rather late in the season a small piece to cucumbers for pickles. The soil was dry, sandy loam, with a warm, southern aspect. I determined to rely entirely upon frequent hoeing to resist the effects of that unusually severe drouth. The piece yielded a fine lot of pickles, the vines remaining green and bearing well until destroyed by the frost; while vines in the neighborhood treated in the ordinary way were dried up and barren. So much for facts. Now how are these results to be accounted for.

We have seen that the soil frequently stirred had gathered moisture, and had also received from some source, nutrition. From what source, and by what powers were those supplies of moisture and nutrition derived? It is a well known fact, that the dryest atmosphere contains vapor, which is usually deposited in the night upon any substance that is sufficiently cool to condense it into water in the form of dew.—At the close of a hot day, when the air is calm and the sky clear, vegetation soon radiates sufficient heat to reduce its temperature to the dew point. The naked earth does not possess this power; hence we often find dew upon vegetation, when the bear ground is dry, not having cooled enough to condese the vapor in the proximate atmosphere. But if the ground is mellow, the air will penetrate its surface, carrying its vapor until it reaches a cooler soil where it is condensed into dew, which diffuses itself through the mellowed earth.

Your agricultural readers have probably noticed that fresh plowed ground is frequently covered with dew, and sometimes with frost, when the adjoining ground is dry.

I think I have succeeded in accounting for the presence of moisture in soil frequently stirred, when almost entirely wanting in compact ground; yet I believe that water is not the only ingredient that soil frequently stirred, derives from the atmosphere.

I am convinced with you, Messrs. Editors, that nitrogen is an important element in the pabulum of crops. Nitrogen is present in the form of ammonia

to a certain extent in the atmosphere, and as it has a strong affinity for water, being absorbed by it in large quantities; is it not reasonable to infer that it is combined with the vapor, and with it conveyed to the roots of growing plants to minister to their urgent necessity? Like favorable effects may be produced in mellow soil by the light showers that frequently occur, even in the dryest weather. The difference in the depth to which light showers will penetrate in soils frequently stirred, and those left hard and baked, is very appreciable.

In conclusion, allow me to exhort my brother farmers to keep the plow, the hoe, and the cultivator pretty busy in their corn, potatoes, root crops, and even their wheat fields, believing it will do more to counteract the injurious effects of our severe drouths, than any other means which they can employ.

Palmyra, N. Y. P. C. R.

That there are advantages to be obtained by stirring the soil in dry weather, no person can doubt who has ever tried it, and as there certainly is some cause therefor, every enquiring mind well seek to know what those causes are. I am convinced that by the stirring, the soil causes the moisture from below to rise to the surface, and also prepares the soil by loosening it to absorb and retain the moisture of the atmosphere, which is so very essential to the growth and maturity of the growing crops, keeping it green and in a flourishing condition during the dry weather. Whereas if the soil is not stirred, (but let alone to wait for rain, as some farmers have done to my knowledge, because they were afraid they would kill, or at at least very materially injure their crops,) after a few days it will become so dry that the moisture from below the surface will not rise even during the night season sufficient to keep the crop green and flourishing, and the soil will fail to absorb and retain the atmospheric moisture; hence the crop becomes withered and begins to show signs of failure much sooner than where the soil was stirred and kept loose, proving conclusively (to my mind at least) that stirring the soil in dry weather is a great advantage to the growing crops. W

Laurel, Delaware.

The effect of the hot sun upon the soil is to render it dry and hard, and prevent the absorption of moisture which would otherwise take place from the dew and atmosphere. If left unstirred, this dryness descends continually, and each day finds the soil less able to absorb and retain that moisture which is absolutely necessary for the growth of crops. The consequence is they cannot come to maturity, and the hot sun scorches them "*to death.*" But if the soil is frequently stirred and kept loose and mellow, it can —somewhat like a sponge—not only absorb a much greater quantity of moisture, but also *retain* it, than if it is left in that hard, impervious state which is so very frequently permitted. D. S.

Salem, Ohio.

I have observed to but little purpose if I am not convinced of the *necessity* of stirring the soil in dry weather. The garden and grainfields of every farmer of any experience, have taught him a lesson in this respect which he cannot forget. Weeds and foreign plants are entirely subdued if the ground is properly stirred in dry weather; hence it gives to the crop a greatly increased supply of food and drink. Pulverization of the soil can only be thoroughly effected at this time, and here is an advantage that is not likely to be overestimated. It is to the vegetable world what mastication is to the animal;—much depending upon the *thoroughness* with which this has been effected.

A neighbor's cucumbers failed last year, and he said to me "he thought they had been *hoed too much.*" The only trouble was, in my opinion, they had not been *thoroughly* hoed. An inch of the surface, although better than nothing is not enough to stir in dry weather; it should be deep as well as thorough.

It leaves the soil in a proper state to receive warmth and moisture, and to retain them longer. How soon and evenly Nature's supplies of water are distributed where the ground has been stirred in dry weather, benefiting every plant alike, and there is not that rapid evaporation which takes place where the ground has become hardened from any cause. The Alwise often witholds the rain, and sometimes even the dew, yet He has not left the farmer to be consumed in the drouth, but has provided a substitute—*deep and thorough pulverization of the soil* We do not wish to be understood as affirming that this will avail in *all* cases; but *that it will greatly mitigate the evils of a severe drouth*, and that an ordinary spell of *dry* weather will be really an advantage to the farmer.

Scipio, N. Y. A. J. C.

THOUGHTS SUGGESTED BY THE MAY NUMBER.

Messrs. Editors:—I do not intend to turn itemizer for the *Genesee Farmer*, as that position is already ably occupied; but some of the prize essays coincide so well with my notion of things, that I cannot refrain from noticing them, and also of venturing a few ideas of my own. First, "On the Management of Milch Cows." The method there described is emphatically the way milking should always be done in stables, each cow tied in her place. "But," says one "that is too much trouble." Let us presume we have a dairy of thirty cows. They very soon become accustomed to being milked in the stable, and the moment they are brought in will seek their respective places, where they may be fastened by a spry boy in a very few minutes. This being done, the milkers have a dry, clean floor under foot at all times. They do not have to follow their cows about the yard.—They have their milk stools on hand and always dry; also hooks in the back part of the stable, upon which to hang empty pails to contain the milk of each cow as soon as milked. Then they need not sit down to a cow with a pail nearly full, and possibly have it turned over. Thus we leave each cow where she was when we commenced milking; no hooking, no running, no turning over the milk pails, no scolding; but all the milking done comfortably, quietly and speedily. Give them a little salt occasionally before letting them out of the stable, which will make them anxious to get there again.

But now let us milk in the yard. The thirty cows are brought in and probably it is raining with a vengeance; five hands or less to do the milking; yard littered with droppings mixed with mud; stools hanging on the fence well soaked, &c. All the old coats, old hats, and all other old duds that can be mustered, are brought into requisition; the consequence is

frightened cows, spilled milk, cross milkers, a thorough wetting and an utter dread of milking in rainy weather. These pictures are not over-drawn, as I have seen them both carried out to the letter, and the inconveniences named suffered because "it is too much trouble" to tie up the cows at milking time.

"On the Advantages of Forethought in Farming Operations," is full of valuable practical truths, and if followed we should see more good farmers, consequently more good farms, better crops, better stock, and a general improvement in agricultural affairs—We frequently hear it remarked of some farmer, "he is a hard working man, but some way he does not prosper." The essay in question divulges the whole secret, if it may be considered a secret. He does not give his business a thought until it is time to execute it, and then he is as likely to commence wrong as right, does not discover his error till it is too late to remedy it, and probably meets with serious loss in consequence.

The essay "On the Advantage of Stirring the Soil in dry weather," is full of sound reasoning, and worthy the attention of every farmer and gardener; it is a theory that has been tested and proved by many, although the "false reasoning" referred to still prevails to a great extent. W. Garnsey.

East Cobleskill, N. Y.

BROOM CORN IN OHIO.

Messrs. Editors:—There is quite an extensive business done at raising broom corn, and manufacturing brooms, in some of the valleys of Ohio.

Any soil that will produce good Indian corn, will be found to be favorable to the production of broom corn. But supposing it is true that any soil which will produce one will produce the other, it is very *necessary* that the after culture be thought of, as broom corn, when it first makes its appearance, is very small, and if the ground had previously been polluted by the seeds of noxious weeds, it will require a great deal more *hand* and *hoe* labor than would have been required if the selection had been judiciously made.

The best soil for its perfect growth and early maturity is a warm, sandy loam; clay lands, or those of a wet and tenacious character, should be avoided. A green sward, if turned under in the fall, has been found most productive, and easiest cultivated. The ground should be deeply plowed, and well harrowed, before planting the seed. A dressing of hog dung and leached ashes, spread on broadcast before harrowing, has been found to be beneficial. Mark the ground off three feet apart each way, if to be planted in hills; if to be drilled, mark the rows about four feet apart. The hill planting is preferable, from the fact that it diminishes the *hoe* labor.

As soon as the plants are up, commence running the cultivator, in order to get ahead of the weeds, (for, as Dr. Franklin says, "a stitch in time saves nine,") and keep the soil well stirred around the young plants. Thin out to eight or ten plants to a hill the second time you go through with the cultivator, which should go through at least four times; and, if the ground be disposed to throw up weeds, run it through to the entire destruction of these *crop robbers*, without stopping to sum up the number of times.

In harvesting, pass between the rows and break the tops about one foot below the brush, bending them towards each other, so that they may interlock and support each other. The proper time for doing this, is just after the seed has gone out of its milky state; but in case of a frost, let no time be lost—do it immediately. The only benefit to be derived from bending, is that it will prevent the bush from becoming crooked, in consequence of the weight of the seed. When fully ripe, cut six inches below the bush, and spread it thin on the second story of some out building.

The seed is separated from the brush by what is termed a "betchel,"—made by placing upright knives together, and drawing the brush through them. This instrument, however, is intended only for hand labor. When raised extensively, a machine driven by some power will be necessary. Those in operation are similar to the cylinder of a thresher, except that the teeth are five inches in length.

There are various estimates in reference to the quantity raised per acre—some asserting that there cannot be more than *five hundred* pounds raised, while others assert that *one thousand* pounds may be raised, by extra cultivation. As the medium between two extremes is generally the proper course, eight hundred pounds may be considered a good yield. Its market value varies in price from five to ten cents per pound, according to the supply and demand. The seed is worth from twenty-five to thirty-seven and a half cents per bushel, depending on the price of other grain. It is very hard to keep from spoiling, if in large quantities, unless kiln-dried.

Laceyville, Harrison Co., O. J. G. Sampson.

CULTIVATION OF BROOM CORN.

Prepare the ground as for maize, and plant at the same season, in rows three and a half by one and a half feet. Drop about ten seeds in the hill, covering about one inch deep. As soon as the corn pricks through the surface, drop a mixture of ashes, plaster and salt (unless on new land)—ten bushels of ashes, one bushel of plaster, and one bushel of salt, thoroughly mixed—a table-spoonful to each hill, and repeat immediately after the first hoeing. Cultivate and hoe thoroughly, at least twice. When hoeing the first time, pull out the superabundant plants, leaving but five or six in each hill. As soon as the seed is out of the milk, table the corn, by breaking two rows across each other, a hill in each row alternately, walking backwards between the rows; break the corn one and a half to two feet from the ground, which makes the tables about the right height. Cut the corn close above the upper joint, and lay the brush on the tables to dry, which will take four or five days in good weather; then tie up the bundles, haul to the barn, and scrape off the seed. The brush is then ready for the broom-maker, usually bringing $125 to $150 per ton.

Five hundred pounds is a poor crop, one thousand pounds a good crop, and fifteen hundred pounds a first rate crop, on gravelly loam. One thousand pounds will make five hundred brooms, costing $10 per hundred for manufacturing. One thousand pounds, at $150 per ton, is $75; cost of making, $50; total, $125. Five hundred brooms, at $3.75 per dozen, is $156.25. One thousand pounds of brush will yield about thirty bushels of seed, worth as much to feed as oats. D. A. A. Nichols.

Westfield, Chautauque Co., N. Y.

MANAGEMENT OF BEES;

OR, PLAIN COMMON SENSE THE SECRET OF SUCCESS.

Messrs. Editors: — Last spring I had fifteen swarms of bees, valued at $90; from these I received twenty-four young swarms, and thirty-four boxes of honey. I have now sixteen swarms, valued at $96, and have sold about $160 worth of bees and honey. The honey used in the family, if sold, would well pay for all the trouble of hiving, &c.,—leaving a nett profit of $166.

I practice the following plain rules in management: When the bees are swarming, I keep at a distance, and let them come out and alight quietly. I then get them into the hive, and remove them to the bee-house as soon as possible. Since I have practiced the above, I have not lost a swarm by flight. My hives hold thirty-six quarts, dry measure, which is small enough for first swarms for wintering. The inside of the hives, old or new, I always make rough with a scratch-awl, before putting the bees in, as they cannot hang to a smooth surface, but drop down, rush out of the hive, and leave for parts unknown. This is the reason why so many swarms go off after being hived. I let down the bottom board at once three-fourths of an inch in front, and let it remain the year round, as bees need as much air in winter as in summer. I let my bees stand in the same place through the winter that they occupied in summer, for the reason that it is natural for them to live in a dormant state a portion of the winter, and after passing through this ordeal, they come out much more vigorous than when wintered in the cellar or chamber.

For Wintering, I select swarms that are numerous, and about equal as to numbers, always killing off the large heavy and small, light swarms. I never lose any by the moth, for I winter none that are not numerous enough to cover the combs. About twelve or fifteen swarms in ordinary, and eighteen or twenty in the best seasons, are as many as should be kept over on any farm, as an over stock proves a failure on the whole.

Box honey should always be drawn before buckwheat is in blossom. Bee-hives should face the south or east, where the morning sun will strike them and start the bees early, as one hour in the morning is worth three in the afternoon to collect honey.

There are a large number of works extant on this subject, but they are of no practical utility to any one. They are generally got up to accompany some particular patent hive, the production of some speculative genius, whose writings and invention show that he is totally ignorant of all knowledge pertaining to the wants, nature or habits of the honey bee.

Brandon, Vt. W. L. B.

MANAGEMENT OF BEES

Messrs. Editors:—There are some things in the management of bees that I do not agree with your correspondent, Mr. Howe. In the first place his hives are too large, and the chamber worse than useless.—I have tried many kinds of hives, including several patented ones, and my experience is, that a square hive a cubic foot in the clear, is better than all the patent hives that the community were ever humbugged with. There should be one or more holes in the top for a super hive or store box. I have found it best to take a common water pail for them, one that the hinges are on the sides, so that the handle can be slipped over out of the way. This inverted on the top of the hive with a stone to keep the wind from blowing it away till the bees seal it down, completes the arrangement. My bees will ordinarily fill two of these pails in a season, and when full you have the honey in a nice portable shape.

My reasons for disliking the chamber hives are, that if they are made in the best manner, there will be crevices by which the bee moth will enter and wind up, and your hives will soon be full of worms. These objections will apply with the same force to structures for bee houses. My experience has been, that bees do better in the open air without anything around them, except some screen to keep off the cold winds, than they do in bee houses, or under trees, or any thing of the sort. The fact is, in this latitude the great thing we have to guard against, is the bee moth. If we can keep this pest away from our hives, all other difficulties are easily guarded against, and the simpler we have our "fixings," the less we shall be troubled.

My hives stand upon a stool about two and a half feet from the ground, in my garden, without anything around them, and these so managed have always been free from worms. I raise my hives about half an inch from the bottom board in the summer time, to give them air. This can be done by placing a small block under each corner, or what is better, drive four nails in each corner and have holes in the bottom board or stool, by which they can be lowered down in cold weather.

Bees if rightly managed and taken care of, can be made very profitable as well as furnishing a delicious beverage at all times of the year. F. W. Lay.

Greece, N. Y.

HOEING CORN IN DRY WEATHER.

Messrs. Editors:—It seems to be a prevailing opinion with many farmers, that time spent in stirring the soil in time of a drouth is as good as lost. This is an error. Observe as you walk forth on a summer's morning, after a plentiful fall of dew, the beaten path at your feet, which is quite dry, while the grass at the sides is dripping with moisture. The reason of this is plain: the air circulates freely in the grass, and deposits the water it may contain readily, whereas, on the path, it had no effect. Now apply this reasoning to the soil, and on the same principle the advantages will be plain—for it is evident that the soil which is kept loose by frequent plowings will receive the greater supply of water, which is the one thing needful in a drouth. As an example of the benefit of stirring the soil in dry weather, I will state that my father last summer had three fields of corn, planted in ground of about equal quality, and they all received about the same amount of tillage, except that one field was plowed over just before harvest, while it was impossible to plow the others on account of the press of work, and after harvest it was too late, and when the corn was husked the one field yielded at least ten bushels more per acre than the other two—and if there was any difference in the soil, the largest crop might have been expected from the two, as the one had been cropped the two previous years. Stephen Powers.

Waterford, Washington Co., Ohio.

BUTTER MAKING.

MESSRS. EDITORS:—There are various methods of making butter, and as many ideas as to which is right. For my part, I think that the utmost cleanliness is absolutely necessary, or all the modes will prove unavailing to obtain good butter. Many spoil their butter by too much working and making it smooth like lard, or in other words, losing what is called the grain, and many by carelessness about their milk vessels.

My method is as as follows: The cows in the summer are salted two or three times a week. The milk is strained in pans holding ten quarts and placed upon shelves in a cool, dry place, with plenty of fresh air, and nothing with the least unpleasant odor is allowed to be near the apartment. In cold weather I have the pans of milk placed over a kettle of hot water, or upon a stove with moderate heat, and remain until it wavers upon the top of the milk. Then stand in a warm place until the cream rises. Warming the milk causes more cream to rise and churns easier.

In warm weather I always let the milk stand until it turns thick so as to obtain all the cream. I have churning done three times a week in summer and once in winter. After each skimming of the cream I add about a table-spoonful of salt and mix well together to keep the cream nice until churning day arrives. I use a stone churn with dash in preference to any other, being easier churned. In warm weather, when ready to commence churning, I have the churn placed in a tub of cold spring water, and when the cream breaks or curdles, add cold water to stiffen it and make it collect well—mixing until all is in a mass. Having scalded the bowl and laddle and cooled with water, rub with salt to prevent sticking. Then with laddle take up the butter and drain off the butter-milk; put on cold water and with laddle cut the butter through and through in small pieces to wash out the butter-milk, but by no means work it over and over, as that will make it tough. Repeat this from three to six times, or until the water runs off clear; press out the water and salt to taste—using fine table salt—about an ounce to a pound of butter, and mix in well; let it stand until next morning, then work carefully in small pieces—pressing more than working, then make in rolls. If packing be desired, I work twice—the last time adding a table-spoonful of pulverized loaf sugar to about four or five pounds of butter. Having made ready a jar and packed it, I then take some salt and pour boiling water upon it to make a strong brine and set away until cold; then strain on the butter. Remove the brine when more butter is to be added, and then replace it; and so on until the jar is nearly filled. Lastly, leave brine on the butter an inch in depth as a more effectual preservative than salt. Cover the jar with a cloth, then put on the lid and store in a cool cellar.

I never had any trouble in keeping butter, and in fifteen years' experience never lost a pound. The great secret in preserving butter consists in extracting every drop of butter-milk. Some may say, "she makes a great fuss about making butter." But I contend we can have nothing good without trouble, and "what is worth doing at all is worth doing well," in regard to house-keeping as in every thing else. The greater part of the comfort of a whole family depends upon the house-keepers' management and oversight. We have often heard it remarked that "the eye of the master would do more work than both his hands," and so in the house. It is not so much in the performance of manual labor of a farmer's wife if she keeps a servant, as in the *care* she exercises, and in using to advantage that very important little member, the "eye," that makes a profitable wife and good house-keeper. T.

Niagara Co., N. Y.

CHEESE MAKING.

MESSRS EDITORS:—In cheese making the first requisites are to have good utensils; the next is to have good rooms for making and keeping the cheese in. Our mode of management with the milk from forty cows is this: In warm weather we milk the cows at night, commencing at six o'clock; strain the milk into a tub and reduce the temperature by placing a cooler containing four pails of cold water in the milk, and allowing the same to remain till both are of the same temperature. In the morning we skim the cream from the milk in the tub, and then proceed to milking, straining the milk in the tub as before; set it at 90°; break up in three-fourths of an hour with a curd cutter, letting it settle ten minutes; dip off the whey; then break up fine with the hands; then scald gradually to 104°; let it stand half an hour, stiring occasionally; then dip into a strainer over a sink, and stir with the hands till fine, when it should be salted with about one common sized tea cup full of salt to fifteen pounds of cheese; press eight hours, then turn and bandage, pressing twelve hours more, when it is taken out and placed on the table and colored with annatto top and bottom. Turn once in two days, and oil on the top with the oil made from the whey cream, the table being kept clean by rubbing with woolen cloths.

East De Kalb, St. Law. Co., N. Y. W. F. R.

ADVANTAGES OF FORETHOUGHT IN FARMING OPERATIONS

MESSRS. EDITORS:—In every occupation, the thinking man has the advantage. Close, consecutive, well-directed thought, always brings a rich reward to the thinker. Where anything is to be performed, forethought is necessary. To the professional man, forethought is an invaluable portion of his capital; so it is to the merchant and the mechanic. To the farmer, it is absolutely indispensable. He might better do without a team or a plow, than without forethought.

HAP-HAZARD is a farmer without forethought. He sleeps or smokes when he should be thinking. By him the long winter evenings are drowsed away. Spring comes. Gentle showers, a balmy atmosphere and genial sunshine are ready to assist him. He has no plans laid. Seed time is at hand, and his fences are unrepaired, and his manure remains in unsightly heaps in his barn-yard. He harnesses his horses, and fastens them to the plow, which is found in the field where he turned his last furrow the summer before. "In one short hour" the decayed wood-work is torn from the castings. A new plow must be purchased, or the old one repaired. Either will take time. The same is true in respect to all his farm implements. Now, when he should be sowing and planting, everything else must be done—cleaning seed, fencing, carting manure, hauling grain to market and wood to the house, purchasing and repairing tools, &c. When

a day dawns, he has no plan for the day's work; perhaps a dozen different kinds of work will engage his attention. The consequence is, that nothing is done well—nothing in season. He raises poor crops: briars, brambles and thistles disfigure his fields; his fences invite his neighbors' cattle to gratify their appetites within his enclosure; loose boards upon his barn, as well as swinging doors, make harsh music whenever the wind blows; his stock shivers with the cold during winter; his wagon and other implements become rheumatic; his dwelling looks like the drunkard's house; he soon comes to the conclusion that "agricultural editors and professors, in the enjoyment of salaries, are almost the only men who think farming profitable."

Mr. ORDERLY is a farmer who exercises forethought. During his leisure hours, when nature sleeps, he plans for the busy season. When his farm work does not hurry, he paints and repairs his tools, prepares his seed, rebuilds his fences, makes a compost of his manure, and decides upon a plan for the rotation of his crops. Forethought enables him to perform every kind of labor, just at the proper season; it enables him to guard against destructive insects, to make every kind of soil friable and productive, to counteract the disastrous effects of drouth, to prevent disease in his stock, and to raise only remunerative crops. His dwelling and other buildings all present a neat, substantial and attractive appearance; his abundant harvests reward his toil; his cheerful and happy family doubly reward him for all his labor and forethought; his granary groans beneath its burden; his purse becomes plethoric with gold; and his table is loaded with the many luxuries of the field and the garden. *He* will tell you that farming PAYS. His sons and daughters, virtuous and intelligent as they have become, will reassure you that farming, with forethought, *pays*.

With forethought, farming is a delightful occupation; without it, it is slavish drudgery. Forethought prepares the farmer's pathway for a healthy, invigorating drive over it during a prosperous and happy earthly career; without it, it will be filled with obstructions and frightful images.

I cannot close without acknowledging the indebtedness of farmers to the agricultural press for a large amount of the forethought that is now exercised. It is HAP-HAZARD that does not read as much as one agricultural paper. E. HODGES.

Marion, Minnesota.

CULTIVATION OF POTATOES IN OHIO.

MESSRS. EDITORS:—I am no scholar, and am not much of a writer, neither am I much addicted to troubling the public with my views upon any subject; but having received the first four numbers of the present volume of the *Genesee Farmer*, and finding in all of them several communications upon the best method of raising potatoes, I have concluded to give you an account of some experiments made by myself. I have examined the different methods proposed, minutely, and find nothing that satisfies me as well as my own experience. The methods proposed by your correspondents are all good, and yet they are all objectionable in a measure. Some of them are adapted to particular localities only, such as clover sod, a high and dry piece of ground, &c.; others are attended with too much expense, although they might answer on a small scale for early potatoes, yet would be too expensive for a field crop.

I commenced renting farms in the north-east portion of Ohio, and have been moving at short intervals, and a short distance at a time, until I find myself, for the last four years, located in the woods, a few miles from the Indiana line; consequently, my experience covers almost every variety of soil to be found in Northern Ohio—and that I believe would include nearly every variety to be found in the United States; and whenever I could follow the method hereafter described, I have never failed to obtain from four to six hundred bushels of potatoes per acre, and I have never had the misfortune to raise one peck of potatoes that were affected with the dry rot, when this method was adopted. During the years of 1848 and '9, when all my neighbors lost their entire crop with the rot within four or six weeks after digging, I raised as good potatoes as I ever saw, from a heavy clay soil. I have raised them on black prairie sand, on prairie muck, on yellow and white sand openings, on gravelly loam, and on limestone land, and they were invariably as sound when new potatoes came again as they were when dug in the fall. The *modus operandi* is this:

The first great principle is to know that your ground is rich enough to produce a good crop, for it is a well established fact that no man can produce a good crop of potatoes unless his land contains a sufficient amount of those ingredients necessary to feed the growing plants. If my ground is not rich enough, I make it so with manure. I then plow at least from ten to twelve inches deep, harrow, and if necessary, plow again, until my ground is thoroughly pulverized—that is, if there is no sod. I then, after harrowing smooth, mark out the ground in rows four feet apart, and invariably run the rows the way the ground descends, taking care to mark out very deep. I then drop small potatoes, or pieces of large ones, from ten to twenty inches apart, according to the strength of the soil. I then turn a deep, heavy furrow from each way on to the seed; this, if done with care, will cover the seed some four or five inches, and leave the outer edge of the ridge higher than it is in the centre; the ridges will be some two feet broad at the top and four feet at the base. As soon as the potatoes begin to show themselves, I take a light harrow, and harrow the surface lengthwise of the ridges, then cover the ground from six to eight inches deep with dry straw, and my work is done until digging time. The deep furrows being turned each way, form quite a respectable ditch, which will carry off any surplus water that may fall in a wet season, and the straw will protect the crop from the scorching dry weather, and will arrest and detain about the roots of the plants all of the ammonia that would naturally escape into the atmosphere; consequently, the potato is never checked in its growth, from the time it comes up in the spring until it is ripe, which will be from two to three weeks earlier than those planted the old way. If I have a piece of sod, either clover or timothy, the first thing I do is to mark out the ground, by plowing a light furrow, say from two to three inches deep, drop my potatoes as before, and then back-furrow as before, taking care to have the edge of the two furrows just meet over the seed. This will throw the light furrow back on to the seed, which will rot and form a good manure. The object of

harrowing the ground before putting on the straw, is to crack up the surface after it has been baked by the sun; for if we put the straw on at the time of planting, it will sometimes keep the ground too wet and cold after a heavy spring rain, and might rot the seed before it has sprouted. When they are planted on a sod, the way to dig them is to throw the straw out of the way, and take a spade or shovel and roll the old sod back into the furrows again, and the potatoes are ready to be picked up, and will generally lay there in pretty respectable numbers.

Pioneer, Williams, Co., O. W. F. Kelsey.

ON THE MANAGEMENT OF A PRAIRIE FARM COMMENCING IN ITS NATURAL STATE.

Messrs. Editors:—Having lived for a number of years in a prairie country, and having myself been engaged in farming upon the prairie, I have naturally tried to be a close observer of the effects of the different modes pursued by different individuals, and at different times. We always expect in newly settled portions of this prairie country a heavy coat of dry grass. This should be burned before plowing, as it is almost impossible to do good work with it on.

The first thing now to attend to is the breaking. This should commence about the middle of May; the grass has then started to growing, and the roots and stalks are full of sap. Prairie broke at this time of year rots much sooner than that broken very early, or in the fall. There may be considerable feed raised the first summer, if a boy follows the plow every third furrow and drops grain of some of the early varieties of corn at the edge of the furrow. If this plan is adopted the fodder must be cut early, and the ground cross plowed, (which can be done with two horses.) Plow in small lands, and harrow once before sowing. Then sow in wheat, from the 10th to 20th September, with a bushel and a half of good clean wheat to the acre, and you are almost sure of a good crop of wheat. Harrow thoroughly—the more the ground is pulverized the better.

As soon as the wheat is taken off the ground plow shallow. The ground will soon become green with wheat and weeds which will protect it from the scorching rays of the sun. Then about the first of October there will be a pretty good coat, which should be turned under deep. When plowing is done in the fall, upon rolling prairies, it should be up and down the hill in small lands. This, if the middle furrows are well cleared out, prevents washing, and the land becomes dry much sooner in the spring.

As soon in the spring as possible, commence plowing for corn. Plow deep, but mark off as shallow as possible. The prairies are of a cold, backward nature, and it is best to have the corn as near the surface as possible. There will be but few weeds this year, but the crop is the better for frequent stirring of the soil. If it is a fair season, you may expect from thirty to fifty bushels to the acre without manure, and with manure, *much more*—for I believe there is no land that shows the advantages to be derived from manure to a greater extent than the prairies.

The following spring this piece of ground should be sown in oats. This is a sure crop. The ground should be harrowed perfectly level after sowing.—Then sow timothy seed at the rate of one peck to the acre, and follow with a heavy roller, making all as smooth as possible. The oats stubble will be a great protection to the young grass the first winter.

By this time we suppose there has some manure accumulated on the farm. Haul it out when the ground is frozen and scatter over the meadow. Follow this up two or three years, mowing in harvest, and manuring in winter. Then break up deep in the fall and sow wheat. Follow up the same rotation, and the result will be better land, better crops, with contentment and smilling faces at home.

It is supposed that for four or five following springs a new piece will be broken and followed up in the same manner, then all will work just like clock work.

Wm. D. Mitchell.

DEEP PLOWING FOR CORN.

Messrs. Editors:—The learned and worthy John Johnston, in the *Genesee Farmer* for March, advises farmers not to plow up the subsoil for corn—a recommendation which agrees neither with my theory nor practice. If your ground has been plowed shallow, don't be afraid to throw up a few inches of yellow subsoil. In marking your ground, you will run through this yellow soil, and thus drop your corn on it. Then, in working your corn, there is a good chance to get the yellow soil mixed with the better, and thus improve it all. And should you chance to have a dry season, the drouth will not affect the deeply plowed field near so much as the shallow one.

About ten years since, when I came to this farm, then one of the poorest in the country, the soil in many places not being over two inches deep, I plowed a heavy, cold field *deep*, turning up some three or four inches of yellow subsoil, and gave some of the poorest knobs a very light springling of compost, made of lime, manure and earth, but so light as scarcely to be worth naming, and, by working the corn well, I raised about an average crop, which I could not have expected if I had only plowed as deep as it had been plowed before. I then sowed the field with oats, and seeded it down with timothy. Two years since I plowed the same field again, when I had dark colored soil, some eight inches deep. This is the result in the majority of my fields. I seed down with clover every two or three years. "Plow deep, while sluggards sleep," is a good motto.

Again, it is highly beneficial to stir the soil often between the corn. The dryer the weather, the oftener you should run your cultivator through your corn; for the more you stir the soil, the more moisture it will absorb from the atmosphere during the night.

Some other time I will give several more hints on working corn, which I have not noticed in the *Farmer*.

H. K.

Latrobe, Westmoreland Co., Pa.

Drink for Young Calves.—When the calves have learned to drink, prepare the following broth for them: Take a large pot and fill it with hay and water; then boil it until the strength is out. Strain off this broth, and to six quarts of it add one pint of milk. This is sufficient for one calf. As they begin to grow, it should be increased. This food is not only cheaper, but far better than milk—or any other drink—because it makes them strong, healthy and elastic.

B. O.

Jackson, Pa.

INFLUENCE OF AGRICULTURAL PAPERS.

Messrs. Editors:—I take great pleasure in witnessing the good influence exercised by your paper among our farmers, manifested by the improved appearance of their farms. I have seen it, as by enchantment, bring order out of chaos. There are a great many men in our country who are styled farmers, that appear to think there is no way to do anything, except *just as father did.* They plow and sow the same field year after year, until they scarce get their seed, because *father did.* They leave the same islands around which they plow; the same rows of thrifty briars and elders along their old, rotten, tumble-down rail-fence; use the same inconvenient barn, generally doorless; keep the same kind of scrubby, half-starved cattle, reminding one of "Pharoah's lean kine;" and very sure to tell the same story about what a *dog's life* the poor farmer has to lead—a great deal of work, and small returns. His cattle die; the dogs kill his sheep; the cattle break in and destroy his crops, or the land is so poor they fail altogether; and worst of all, the *store-keeper wont wait any longer,* and so he sells out and goes West, I suppose to repeat the operation. Or, what is vastly better, he or his boys take the *Genesee Farmer,* which roots out those islands and hedges of briars and elders; repairs his fences, or replaces them with substantial board fences or stone walls; puts up some barn doors; builds a good barn-yard, surrounded by comfortable sheds, under which repose a score or more of fine, sleek-looking cattle, contentedly and slowly chewing their cud, and winking their satisfaction at the change that has taken place, no doubt wondering what has wrought it.

Cameron Mills, N. Y. S. Mitchell.

DEEP PLOWING.

Messrs. Editors:—I see much is said on the subject of deep plowing, and much well said; but I wish to call the attention of plowmen to one idea not often adverted to—that is, to study the quality of the soil, to see whether they had better plow deep or not. Every farmer knows, or ought to know, that different soils should have different treatment; for instance, deep gravelly soil may be plowed deep to good advantage, but any soil resting on a cold, lifeless subsoil, had better not be plowed so deep as to fetch up much of that cold, lifeless earth for the present or first crop; but judicious treatment, and rich manuring, will increase the depth of the soil, and of course increase its productiveness, especially in a dry season. I remember I once scraped off a piece of land to fill a small pond in a field, and took the top soil all off, perhaps one or one and a half feet deep, and, by manuring and plowing, restored the spot as good as the surrounding land; but have no idea it would have produced much at first, by simply plowing. I approve of deep plowing in general, but not always. I once was plowing a gently sloping side hill, in the spring, for corn; of course some turned up hill, and some down. That turned up hill always produces the best crop, provided it is thoroughly plowed. The reason is, that turned up does not fall so flat, and leave the cold bottom on top. A neighbor came along, stopped, and made me a farmer's field visit, as we frequently do. He said if I would plow twice as deep, I would get double the crop. He was plowing a kind of mound-shaped hill, across the road, and went right around the hill, turning the furrow all the time down hill. Notwithstanding my neighbor's advice, I plowed my way, and he his; his corn came up weak and yellow, mine strong and green, which kept ahead of his, and produced, I think, one-third more. A. Devol.

Ganesvoort, N. Y.

GOOD TWO YEAR OLD STEERS—THE WHEAT CROP.

Messrs. Editors:—Some folks can raise two year old steers as well as Mr. Joseph Wright. A neighbor of mine sold one the other day, three-fourths Durham, to a butcher in Geneva, for $60. He was two years and one month old, and was fed nothing but very good hay during the last six months. And I sold one a few days ago, to Messrs. Thomas & Van Houghton, for $60, and he will not be two years old until the 5th of June. I have fed mine two quarts of oil cake meal, daily, since the 28th of last November. He was raised on skimmed milk and a little oil meal until four months old, and on hay, with two handfuls of meal daily, the first winter, good pasture through the summer, and fed on corn stalks since the 28th of November, with the meal, as above stated.

I am sorry to say that the wheat generally in this neighborhood is miserable. The drouth last fall prevented its getting root enough to withstand the severe frosts early in February, when we had no snow to shelter it. I never saw a worse prospect for a crop, except where it was sheltered from the west winds. On loamy and sandy soils it is better, but on clay soils bad. I am plowing up seven acres that was sown with wheat, and would have plowed up five acres more, had it not been sown with grass seed. That fallow from old sod looks pretty well; but there will be a bad account of the wheat in Seneca and Ontario counties, and by a letter from Northern Ohio I find it is equally bad there.

Near Geneva, N. Y. John Johnston.

The Way I Made a Fence on Heavy Ground.—I set the posts in blocks of old oak timber, from the frame of an old oak house,—because I had such, not because I think it any better than new. I cut the blocks two feet nine inches long, six by eight inches square, morticed them with a two inch anger, and beat out between the holes. I made a tenon on the post to fit the mortice, and draw bore it fast; and then, for a picket fence, let in the lower rail about six inches from the block, laid the other on the top of the post, about two feet from the lower one, and put on the pickets as usual. For board fence, the blocks should be longer, because it will hold more wind. I made another piece, by digging a ditch two feet deep; then sharpened the lower end of the post, and stuck it in the bottom sufficiently to hold it up; then filled the ditch with small stones nearly to the top; covered the stones with leaves (straw or shavings are just as good); then covered with earth deep enough to raise it a little above the common level, because wet land heaves up the posts, not dry. I think it will answer the double purpose of keeping the posts from raising, and form an underdrain. The lower end is left open, and water has run from it all winter, when there has been any to run. A. Devol.

Ganesvoort, N. Y.

SWAMP MUCK AS A FERTILIZER IN DRY SEASONS.

Messrs. Editors:—On the 6th of May, 1856, I planted six rows of potatoes, (Mountain June,) of sixteen hills each, on purpose to test the value of swamp muck as compared with other manures, such as horse, hog, cow and hen manures. Placing equal quantities in their respective rows, except the hen manure; of this I used about a double handful to each hill, of the others a barn shovelful to each hill, covering the seed with it, and afterwards covering the whole with earth. I placed one potato in each hill—uniform in size and shape.

Those manured with muck and cow dung made their appearance as soon as those in the row not manured. But the other three were some ten days later; they were dug the 23d of August—the tops being dead and the potatoes ripe, and each row weighed as follows:

No manure,	22 lbs.	or	91½ bush.	per acre.
Muck,	24 "		100 "	"
Horse manure,	19 "		82 "	"
Cow manure,	23 "		96 "	"
Hog manure,	14 "		60 "	"
Hen manure,	20 "		83 "	"

Seymour, N. Y. J. C. Adams.

[Remarks.—The experiment was on too small a scale to be satisfactory.]—Eds.

MANAGEMENT OF MANURE.

Messrs. Editors:—Your editorial in the April number of the *Farmer*, respecting the application of "Muriatic Acid to manure heaps" does not brighten the hopes of those farmers who have been looking for a simple method for fixing ammonia. We may have a general knowledge of chemistry, but to the practical chemist we must look for a solution of many questions. Some of us to avoid the loss of manure in a common barn yard have constructed ample cellars and covered yards, where, as we feed our stock, the straw, chaff &c., moistened only by the urine, will be two or three feet in depth. The fermentation on the surface will be rapid, and to apply often gypsum until a ton or more is used, will not prevent fire-fang or give satisfactory results.

Common salt is sometimes used, but is there not danger of its doing more injury than good? I cannot speak from experience, but nothing suggests itself more plausible than to freely water it, and to repump upon it all that drains into the tank. But while water wil absorb several hundred times its bulk of ammonia, and if judiciously applied will retain the most of this gas, does not chemical science provide something to render it a salt without loss or check to fermentation?

We wish from you and others more light on this question. H. J. Foster.

Palmyra, N. Y.

[We know of no better plan than that recommended in our article on Barn-yard Manure, in the January number of the *Farmer*. We shall be glad to hear from others on this subject.]—Eds.

To Destroy Weeds.—There seems to be quite a difference of opinion regarding the best means of destroying weeds. I will give my method: use the Michigan double plow thoroughly, and it will be a quietus. D. Hamlin.

Clay, Onondaga Co., N. Y.

THE BENEFITS OF AGRICULTURAL FAIRS.

Messrs. Editors:—Many farmers appear to be of the opinion that, except they have large farms and large purses, it is of no use being a member of, or in any way encouraging or supporting an Agricultural Society, because they think that it is only those who obtain several premiums, that gain any thing by it. Now, this is a false conclusion, and I fear that few of such men will read the *Genesee Farmer* where they may learn better. Agricultural Societies are (I am bold to assert) a public good, and there public exhibitions are their beauty, their pride, yes, and the key, as it were, which holds them together—their very life and soul.

Now the benefit of Agricultural Societies are these: (1) They induce better cultivation of the soil, by which better crops are grown, and better stock raised, for which better prices are obtained and more profit is realized. The farmer is thus enabled to carry on still farther his improvements by purchasing better implements and hireing more labor. Thus (2) while the mechanic is enjoying the best articles the farm can produce, the farmer has the pleasure of working with, and enabled to pay a good price for, the mechanics' best wares. The farmer and the mechanic are mutually benefitted, and (3) through these Annual Exhibitions there is a friendly strife created, the mind becomes aroused into a state of activity, and thus improvements are accomplished which astonishes even those engaged in the work themselves.

(4) At these fairs the best stock of a neighborhood or country are brought together,—yes, and the best men too in point of utility to the place in which they reside. You may see them engaged in friendly intercourse with each other, making enquiries, drawing comparisions, and so gathering up a stock of knowledge to be spent in improvements during the succeeding year. J. N.

Nassagiweya, C. W.

HINTS ON BUILDING A FARM HOUSE.

Messrs. Editors:—As you request plans of cheap houses from your patrons, allow me to present a few thoughts. No farmer should build a dwelling without a good cellar, secure from frost without banking, and properly divided to suit the wants and convenience of the family; water and rat proof, &c. After digging deep enough to allow carrying a basket upon the shoulder without stooping when the house is finished, dig the outside two feet in width, one and a half to two feet deeper, and fill nearly even with the cellar botton with small stones thrown in loose; from this you can drain any water that may appear, and always have a dry cellar.

When the wall is within four feet of the surface of the ground, use smaller stone; allow none to reach over half the width of the wall, that is, build two walls to the sill; build the inside wall to the floor, thus leaving a space in the centre for dead air, to prevent freezing. Have the sash for the windows made so as to put two glass in each light, put one from the outside and one in the inside, with a space between. Use water lime to plaster the inside wall; smooth it well. I would not advise cementing the bottom, if you have a hard bottom without, as I think it makes the cellar more damp. Brick are much the best for partition walls.

Doors should be sufficiently wide to admit a convenient egress of barrels, &c., and made perfectly tight.

A good cellar should be divided so as not to keep butter, fruit, vegetables, roots, &c., all in one room. Persons who do not wish a separate room for butter and milk, if they have a dry cellar, can make a nice one for butter, by digging three or four feet in the coolest part of the cellar, laying the sides and bottom with brick or stone in cement; having stairs to descend, and a tight trap door over it. Another essential requisite to a convenient farmer's cellar, is an outside door from the woodshed—if adjoining—if not, you can purposely erect a shed over the stairs.

Ballston Center, N. Y. D. E. Larkins.

AN ACRE AND A HALF OF WHITE BEANS.

Messrs. Editors:—Allow me to give the facts respecting the cultivation of one and a half acres of beans last year. The soil is free from excess of wet, but not what would be denominated dry, the subsoil being tenacious but a reasonable depth below the surface. The field was cultivated with corn and beans the preceding year. Last spring after having put it in good condition with plow and harrow, I drew shallow furrows with the plow for planting, say two to three inches deep and three feet distant, and running north and south. Planted in the furrow from six to eight beans in the hill, scattering them a little, say six to eight inches; then leave a space of twelve inches and plant more beans, and so forth. I have tried drilling and find no difference in the product, as in both cases they make a close row; but in pulling, the former method is preferable, when by using both hands we pull a hill a teach grasp. When the beans were fairly up, I passed the plow once around each row, turning the earth towards the beans; and when nearly putting forth blossoms, plowed them again in the same way, one hand with the hoe following the plow at each dressing. Under ordinary circumstances the bean lot is easily kept free from weeds, from the fact that as soon as the plant is up its large foliage takes a horizontal position, and almost bids defiance to intruders. From the one and a half acres I had twenty-four bushels of beans, (small white,) worth one dollar and fifty cents per bushel, at the barn.

On land that has suffered from hard usage, when being restored, and in a transition state, the bean crop is much more reliable, and will pay better than wheat.

Springhill, Bradford Co., Pa. H. S.

Be Kind to thy Cattle.—Working cattle shoud be *well cared for*, and they will abundantly remunerate their owner by an increased amount of labor.—They should be kept well shod, that their feet do not become sore, and thus unfit them for service. The unmerciful "gad," and the still less humane *goad* should be banished from every christian farmer's establishment. Oxen do not need lashing and beating any more than horses, and if properly trained will perform well their part by gentle and humane treatment. In fact, it is an almost unexceptionable rule, that *all* domestic animals will become docile and tractable by kind and gentle treatment; while *harsh* treatment will always render them more or less vicious and stubborn. D. S.

Salem, Ohio.

CULTIVATION OF ONIONS.

Messrs. Editors:—The soil best adapted for the cultivation of the onion, is a medium between a cold, heavy, and a light, dry. A rich, clay loam is very good. The preparation of the soil for the onion is similar to that for other garden or root crops, with one exception: It is not necessary to cultivate the soil as deep as for beets, carrots and parsneps. If it is desirable to cultivate on a small scale, I would recommend to make beds four feet wide, and as long as may be desired. Sow in drills crosswise of the beds, leaving a space of seven inches between, if the soil is dry; press with the spade, (a more speedy and neater method is with a roller a foot in diameter and two and a half feet long, drawn lengthwise of the beds.) Immediately after sowing, dress with equal portions of lime, ashes and plaster, allowing six or eight quarts to the square rod. As soon as the drill can be discerned stir the ground with the hoe, breaking the crust about the onions. When the third leaf appears, thin out to five inches. Keep the ground free from weeds, and move the surface to prevent it from crusting. If extra size is desired, water once or twice a week with liquid manure, such as drain from barnyards. If this cannot be had, very strong manure may be leached as are ashes for lye. Apply it with a water pot or dipper.

For field cultivation, let the drills be one foot apart, using the same treatment as before described.

Caledonia, Liv. Co. D. Leatherscich.

REARING CALVES.

Messrs. Editors:—The calves should be taken from their dam and tied up at the first sight, and fed by hand on new milk until four weeks old, at which time they may have part skimmed milk, which may be gradually increased and the new milk diminished, so that by the time the calf is eight weeks old it may be fed entirely on sour or thick milk. If you wish to raise a fine calf commence at two weeks old to add a small handful of meal once a day to the feed, composed of one part flax seed to four parts peas and ground fine. This may be increased to any desirable amount. If it causes the calf to scour, add a lump of white chalk, the size of a hickory nut, once a day, and increase daily until the scouring stops. The young animals should be well cared for both summer and winter, and through all the stormy or cold part of the year they should have a good shelter, and such as are intended for milch cows or working cattle should be tied up at night in a warm but clean and well ventilated stable for the purpose of getting them under subjection. Oxen should never be worked after the sun goes down. W. S.

Canada West.

Cure for Sweney.—Let me give you a cure for sweney which I have seen treated successfully after *many* others had failed on two valuable horses.—About the middle of the shoulder, or where the sweney is the worst, make an incision *through* the skin, only large enough to admit a quill, blow into it, and work it round till the skin is loosened as far as the sweney extends; then confining the air, close up the orifice, as we do in bleeding a horse, by sticking a pin through the skin and fastening round with thread or a horse hair. C. Palmer.

Mansfield, Ohio.

CULTIVATION OF MILLET.

MESSRS. EDITORS:—Millet is cultivated for several purposes, and has obtained many flattering commendations from persons who have grown it extensively. In Italy, and some parts of Germany, it is made into bread, which is very nutricious, and extensively eaten by the poorer classes. Generally, the seed is grown as food for animals, and more especially for poultry. It is estimated (by those who understand how to use it) to possess about the same value as corn.

There are three varieties of *Panicum* cultivated as millet, besides two species of the *Sorghum*, all under the common name of millet. Two of these species, *Panicum Germanicum* and *Panicum Italicum*, have round heads, much resembling what is known by the name of pigeon grass. These varieties have not succeeded well as yet in Ohio. The common, or German millet, grows four or five feet high, with stalks as large as coarse wheat straw. The *Panicum miliaccum* grows about three feet high, with a broad leaf at each joint, terminating in a panicle, somewhat resembling Poland oats. There are two varieties of this species, one having brown, and the other yellow, buds. This species is found to be more profitable for cultivation than the two first named. From the small size of the stalk, and the great quantity of leaves, cattle and horses prefer it to the best timothy hay.

One of the favorite methods of growing this crop, is upon green sward, deeply fall-plowed, and well harrowed or worked with a cultivator or gang plow in the spring. Then apply a coating of fine, well rotted manure, and if the season is favorable you may expect a good crop. Sow from three pecks to a bushel per acre. If sown about the middle of May, it will be ready to harvest about the middle of July, and yields from three to four tons of excellent hay.

JOHN G. SAMPSON.

Laceyville, Harrison Co., Ohio.

VALUE OF MANURE FOR POTATOES.—About the 15th of May last I plowed a piece of green sward, and then let it lay for a few days exposed to the sun. On the 19th of the same month I harrowed it, and also planted some potatoes the same day. I never saw any piece of ground harrow up so beautifully in my life. On six rows I put a forkful of well rotted manure in each hill, and six rows I left without. The result was as follows: The rows I manured yielded fifteen bushels to the row, or ninety bushels from the six rows; and those without manure only yielded nine bushels to the row, or fifty-four bushels from the six rows. The rows were forty rods in length. G. P.

Chippewa, C. W.

PLANTING BEANS IN DRILLS OR HILLS.—Your Ohio correspondent recommends planting beans with a machine drawn by a horse. Now, I planted a piece of about six acres last year, part of it with a "machine drawn by a horse," and the remainder with one of WAKEFIELD'S Patent Corn Planters, and found the yield decidedly in favor of the planter. There was also a large saving in seed, and in labor in pulling, the plants being in hills. My experiment was so decidedly in favor of the planter, that I shall use it exclusively this year. D. D. SIMMONS.

Clarkson, N. Y.

ASHES AS A MANURE.

MESSRS. EDITORS:—Having for a few years past used all the ashes I could easily get, I can say that they are a cheap manure, and cannot be used upon any soil without the most beneficial effect. I have used them in various ways, and upon almost all kinds of grain, grass and potatoes, and always found my crops increased from two to four fold by their use. As to the use of leached or unleached ashes, I have used them side by side on my grass land, sown broadcast, at the rate of forty or fifty bushels to the acre, with an increase of hay the first year of at least three fold, but the difference in the grass after the leached or unleached ashes was scarcely perceptible.

I have used them with good success in the hill for corn and potatoes, mixed with an equal part of plaster and lime, the lime being slacked with strong brine; but the result, when used in this way, was always in favor of the unleached ashes. I have also used them with swamp muck, at the rate of one bushel of ashes to a load of muck, and after laying exposed to the ashes one year, spread and plow in, with good effect. A. F.

Corinth, Saratoga Co., N. Y.

DON'T THIN YOUR CARROTS.—I wish to enter a protest against the plan of thinning carrots to three or four inches apart. I seldom thin out any except in spots where the seeds were deposited in clusters and come up, perhaps a dozen in the space of a hands breadth. Two years ago this season, I planted a patch of ten rods long by fifty feet wide, and dug one hundred bushels of carrots, and not one of them larger than one and a half inches in diameter and fourteen inches long, and when a basket full was lifted to the wagon it denoted some substance; they were of the long orange variety. A neighbor, the same season, raised on half an acre about one hundred and fifty bushels, and his smallest were larger than my largest, but the noticeable difference was in the weight of the same basket when filled. D.

Gates, N. Y.

CULTURE OF POTATOES.—I give my land a thorough plowing early in the spring. Then harrow repeatedly. Then about the first of June, with a horse and small shovel-plow harrow out rows four feet apart, and drop cut potatoes in the furrow twelve or fourteen inches apart. Then the horse and a winged shovel-plow covers the potatoes with a gutter over the potatoes to catch the rains, and this gutter should be left in all the after tilling, which should be thoroughly done.—To harvest I take a horse and a common plow, throwing a furrow from each side the row; this makes a complete ridge in the middle of the rows and leaves very little work for the hoe.

I have as nice potatoes as any one can wish for, raised after the above plan. The variety, early round, white fleshed Pink Eyes—some weighing over two pounds. AMOS CLIFT.

POLL EVIL.—Wash the poll well with bar soap and water; then spread green ointment on flax or tow, and tie it on. If there be proud flesh, add a little blue stone, well pulverized. Dress once a day until it begins to heal, and then once in two or three days. The horse can be worked if the bridle is tied back. J. W. K.

Jordan, C. W.

CULTIVATION OF BEANS.

MESSRS. EDITORS:—Beans produce best on a rich, loamy soil, but they will usually produce well on any soil that will grow good corn, wheat, barley or peas. There are numerous varieties, among which, for field culture, we prefer the small round white bean, which will usually get perfectly ripe in ninety days from the time of planting, and will yield from twenty to forty bushels per acre. Plant them in drills or hills, as soon as your corn is planted, about two feet between the rows, and if in hills, one foot apart in the row. Keep the weeds down with the hoe, but do not hill up the beans. When ripe, stick down stakes about eight feet long, lay stone or wood around the bottom, so as to keep the beans off the ground, pull and stack them around the pole, the roots inward, cap with straw, and let them stand until well cured, when they should be drawn in and threshed with a flail, and well cleaned, ready for market.

H. H. TAYLOR.

East Rodman, Jefferson Co., N. Y.

PLOWING WITHOUT HEADLANDS.—Commence in the middle of the field or land (as the case may be) where you would finish in the ordinary way of plowing. Make one furrow the length the dead furrow would be if you had finished there, lift the plow around and turn the team gee, and throw the second furrow slice against the first, and so on. Avoid plowing at the ends until you have gone five or six rounds, when the broken land will have become wide enough to plow across. Continue on in this way until you have finished the field or land at the outward edge. In this way the teams never have occasion to walk on the broken land, and you may keep plowing all the time. The teams will turn "gee" as readily as "wha," after going a few rounds.

Ballardsville, Ky. W. B.

PERUVIAN GUANO AS A MANURE.—Last year I prepared a piece of ground, hauled out at the rate of twelve loads of good fine barn-yard manure to the acre, spread it, and then sowed to buckwheat. I had a large growth of straw, but, on account of the dry weather, had but little wheat. After sowing the above described lot, I prepared another piece by the side of it, in order to try an experiment with guano. After preparing the ground, I sowed at the rate of one hundred pounds of guano, mixed with four bushels of ashes and two bushels of plaster, to the acre; then sowed my buckwheat, and harrowed it in. The wheat was equally as good, in every respect, as that part manured with barn-yard manure. A. F.

Corinth, Saratoga Co., N. Y.

SELECTING SEED CORN.—I have been very particular in selecting my seed corn. I continue to cultivate the same kind of corn that I have raised for twenty-two years past, and it has greatly improved, both in size and time of maturing. My plan is to select the largest and best filled ears when I am husking, and put it into a barrel or box until spring, when I again pick it and reject all that is not perfectly sound, and the result is that my corn comes up well, and, instead of running out, it is greatly improved. So much for my experience in saving seed corn. W. W. GRAHAM.

Duncansville, Ky.

WHY BUTTER IS DEAR.

MESSRS. EDITORS:—In the last volume of the *Genesee Farmer*, some one tells us why butter is dear; but I think he attributes it to the wrong cause. I live in a community of farmers, and I know of no farmer's daughter that does not know how to make butter; and some I know that have an ornamental education, but it does not interfere with their knowledge of butter making, as they learn that as they are growing up, and will no more forget it than they will their A, B, C's. If the women and girls don't know how to make it, why is it that the farmers have butter for their own use? which I can affirm they do have, and use it too.

The reason why butter is dear, is because it is scarce, and it is scarce because of the increase of population, which consumes the surplus in the small villages, and but little comparatively finds its way to the cities, unless from the dairies, and that is not often sold until fall. The only remedy will be for rich men to buy stock farms, and *stock* them, in reach of these Northern railways where land is cheap, and the butter can be sent into market once a week. There are many families who have help of their own enough to manage a small dairy, who have not the means to buy, or even to stock a farm, who would do well for their employers on such a place. I think it would be a better investment than bank *stock*.

Saratoga Co., N. Y. A FARMERS WIFE.

PEAS.—Select a piece of clover sod where you can drain it dry; plow in the fall as deep as possible; drain it well. In the spring, as soon as the ground is thoroughly dry, harrow the ground well, and sow the peas, plowing them in about four inches deep.—Then go over the ground once with the harrow lengthwise the furrows. To destroy the bugs in the peas, put them in boiling water long enough to kill them, before sowing. G. JOSLIN.

Mt. Brydges, C. W.

BONE SPAVIN.—I have tried the following and found it a good remedy for bone spavin. Take two ounces of mercurial ointment, one ounce of iodine ointment, two ounces of camphor and six ounces of oil origanum; warm and mix thoroughly by holding the dish in warm water. Apply twice, daily. Keep the horse dry while applying; rub the mixture in with the hand. It will cure in five days.

Niagara, N. Y.

CULTIVATION OF CORN IN INDIANA.—The best mode of cultivating corn with us, is to take a grass sod, roll and harrow fine. Then stir the top of the ground between the rows often; keep the weeds out and hill up but little. The distance three feet each way is about right. Four stalks in each hill for eight rowed corn. C. E. HILDRETH.

Dupont, Jeff. Co., Ind.

BEANS.—The most profitable varieties of beans which I have rasied—and I have tried a good many—are the White Mountain, a large white bean; and the Dwarf Horticultural. The former is a half runner, and is very productive and profitable; the latter early and good. H.

SHORT-HORN COW ADELAIDE.

Adelaide was bred by Hon. ADAM FERGERSON, Woodhull, C. W.; red roan, and calved April 20th, 1850. She was sired by Halton (11,552), out of Lady Elgin by Symmetry (12,170), Flora by Wellington (13,987), Victoria by Agricola (1,614), Beauty by Snowball (2,647), — by Lawnsleeves (365) — by Charles (127.) She was bought by Hon. JOHN WENTWORTH, for the "Illinois Breeding Association," at Summet, Cook County, Illinois.

Horticultural Department.

SIX HARDY EVERGREENS.

In a climate where deciduous trees are destitute of foliage for nearly three-fourths of the year, it is surprising to witness the tardiness with which farmers plant out evergreens. Take a sleigh ride in almost any direction, and you will find set out along each side of the road, at regular distances, tall, straight, branchless sticks—a cross between a hop-pole and a telegraph post—which you will be surprised to hear are intended for shade trees; but where will you meet with a grove of evergreens surrounding a farmer's quiet homestead? The glaring white houses look cold and cheerless, as the fierce north-wind whistles around their unprotected gables. The atmosphere becomes colder as you gaze, and you drive on, thinking it less strange that so many farmers' sons and daughters are willing to leave such bare and desolate scenes for even the dingy walls of a crowded city, than that intelligent, industrious, prosperous farmers should so far lose sight of their own interest as to neglect to ornament their rural homes, by planting out a few of the hemlocks, firs, pines or cedars which are to be found in great numbers in their own woods, and which could be transplanted with a ball of earth around their roots, at little expense, during the leisure season of the year.

There has been much difference of opinion in regard to the best time for transplanting evergreens, from the fact that if the operation is performed with care they can be transplanted with safety at any season of the year. In removing large trees from the woods to another part of the same farm, and when a considerable quantity of earth is taken up with them—as should always be the case in transplanting large evergreens—probably the best time is in the winter, because the farmer has then more leisure and it is easier to remove them with a large ball of earth. Setting aside all considerations of leisure and facility, the best time to transplant evergreens is during the present month, or just as the buds are "swelling to burst."

The point of most importance in transplanting is to avoid exposing the roots to the air. If the roots are exposed to the sun and wind till they are dried the tree *may* live, but the chances are very much lessened.

Nearly all evergreens prefer a rather soft, moist soil, but not wet with stagnant water. They will do well, however, on nearly all soils by judicious management. Dig the holes of good size and depth, and if you have any muck or peat that has been thrown up a year or two and is thoroughly decomposed—if it has been decomposed with ashes or lime so much the better—put a small barrowful under each tree and mix it up with the soil, and then plant the tree on the top, spreading the roots out carefully and covering them with light, moist soil. Mulch the ground round the tree, and you will be abundantly rewarded for your labor.

In regard to the best kinds of evergreens, it is difficult to make a selection from so many worthy candidates. We have, however, concluded to name six that are perfectly hardy and every way desirable, forming an agreeable contrast in color and habit.

The Norway Spruce *(Abies excelsa.)* This is a rapid growing, hardy and most beautiful tree. Even in old specimens its fringed branches are gracefully spread out on the ground and ascend pyramidically to the top, with its leader pointing to the skies.—There are some beautiful specimens of this tree growing in the grounds of Aaron Erickson Esq., of this city, which we never see without exclaiming with Richard Hooker, "the goodliness of trees when we behold them delighteth the eye," and recalling the remark of a more modern but less orthodox writer, that "without trees the world would be a desert; with them it can be made a paradise." It is the loftiest tree indigenous to Europe, attaining in some instances the height of 180 feet. It derives its nourishment chiefly from the surface and luxuriates in soil which is cool and moist; and with a surface-soil of ordinary quality, is one of the few trees that will thrive where the sub-soil is wet and retentive. There is a noble specimen of this tree at Studley, England, 150 years old. In 1853 it was 124½ feet high and at a yard from the surface of the ground, the trunk was 14½ feet in circumference. It is still healthy and vigorous with branches and foliage nearly to the ground. It stands in a sheltered situation on a rich alluvial deposit, and has at no period of its growth suffered from confinement. The late A. J. Downing says, "there is no ornamental evergreen, on the whole so satisfactory, so hardy in all parts of the country, and so well adapted to all soils as the Norway Spruce."

The Black Spruce *(Abies nigra.)* is indigenous to this country, and closely resembles its Norway congener in habit, though differing from it somewhat in the richer color and increased density of its foliage and its less rapid growth. The tree is abundant in all the northern States, and farmers cannot plant it too extensively. It is from this tree that the genuine and wholesome "spruce beer" is made.

The Scotch Pine *(Pinus sylvestris.)* This is also a hardy, vigorous and rapid growing tree; its dark color and general habit forming an agreeable contrast with other evergreens. If a native is prefered the Weymouth or White Pine *(Pinus strobus,)* is every way suitable, though its growth is not so rapid as the Scotch pine. Though indigenous to America, it has become extensively known as the Weymouth pine, from the fact, that at the beginning of the last century large numbers were planted by Lord Weymouth on his estate in Wiltshire, England. It is the American White pine of commerce.

The Austrian Pine *(Pinus Austriaca)* was introduced into England in 1835, and is now more extensively propagated than any other foreign pine. It is also rapidly gaining favor in this country. It is, perhaps, the hardiest of all pines, thrives on a great variety of soils, and is of robust growth and handsome habit. In Austria, it sometimes attains the height of 100

feet, and produces a strong, resinous timber, superior to that of the other varieties of the species.

The American Arbor Vitæ *(Thuja occidentalis)* is indispensable in all ornamental grounds. For forming a screen, it has no equal. It transplants

AMERICAN ARBOR VITÆ.

easily, grows freely and quickly, and makes a beautiful hedge, though not strong enough to resist animals. Grown singly on a lawn, it forms a handsome, pyramidal tree. There is a beautiful specimen growing in the grounds of S. Matthews, Esq., of this city, of which the annexed cut, drawn and engraved for our *Rural Annual*, is a correct likeness.

The Siberian Arbor Vitæ *(Biota pyramidalis,)* is the hardiest variety of the species, and, we were

SIBERIAN ARBOR VITÆ.

about to write, the handsomest. That it forms a beautiful pyramidal tree the accompanying engraving drawn from one of three fine specimens growing in an exposed situation on Mr. Matthews' lawn abundantly proves. The branches are flat, and very densely set around the stem. It is of slow growth, but retains its color so well during even the severest winters, and has withal such a handsome form and foliage, that it deserves a place on every lawn.

RABBITS AND FRUIT TREES.

Messrs. Editors:—In the December number of your useful paper, I see that considerable complaint is made about the injury done to young apple trees by the mice and rabbits. In later numbers, also, their mischief is spoken of, and some preventives made known.

I have a young apple orchard that I have taken some care to protect and bring on. My trees were transplanted from the nursery in the spring of 1855, and have passed the two last winters almost *entirely* without injury from the rabbits, which are as plenty as the boys that hunt them could wish. The mice, though very plenty, never meddle with our trees; but the rabbits sometimes spoil half an orchard in a single night, if not prevented. The mice attack our corn-cribs and out-stacks; but I have two big tom cats who know well enough how to catch them, for of late they are becoming very scarce about their usual haunts. And to keep the *rabbits* from my apple trees, I rub them thoroughly with soft soap. This has proved a complete preventive against the depredations of the rabbits in my orchard. I take a mop of woolen rags, late in the fall, with which to apply the soap to each tree, which I do to the height of two and a half feet; and in case of much rain in the early part of the winter, I make a second application. *This remedy need not be doubted*, for I have tried it *two* winters with complete success. My trees are now smooth barked, and look as though they had really been benefitted by the soap. J. N. Boaz.

Near Exchange, Ky.

WHY FARMERS NEGLECT THEIR GARDENS.

Messrs. Editors:—The half acre devoted to gardening by the farmer is to him the least attractive of any other part of the farm, yet it is the most profitable in a small way, should he count the cost and the return. I am certain that no other half acre will yield near the nett profit of the garden, yet it is the most neglected, and why? *Because flowers are entirely banished from it.* There is nothing to cheer the flagging spirits after a day of toil, nothing to draw the owner during an idle hour to while away the time among the beautiful sentiments of nature. His mind is engrossed wholly by the larger and more marketable productions; therefore is the garden delegated to the boys, who, having projects of their own, are very apt to slight it. Besides, the garden requires attention at a time when a farmer, who himself leads the laborers in the field, can have but little time to spare.

Now to remedy the evil, for surely it is an evil of magnitude, is first to persuade them to subscribe for, and read, the *Genesee Farmer*, or some kindred journal; and next, invite the girls to assist in planning the grounds, and let them have a variety of beautiful flowers successively through the season. Then would the garden be no longer the shunned part of the farm. D.

Gates, N. Y.

HORTICULTURAL OPERATIONS FOR JUNE.

Search diligently for bugs and carefully watch their operations upon the cucumber, melon and squash vines. They will be found in every little crack and cranny immediately about the collar of the plants and will eat them completely through just at the surface, and sometimes below the surface of the soil before one is aware of their existance. As the weather gets warmer they will be found flying about from plant to plant and then will be more difficult to catch. The easiest and quickest way to catch them is for two persons to take a piece of gauze about a yard square, then each person walk on one side of the row of plants with the gauze stretched between them; walk quickly and spread the gauze over the hill of plants before the insects have time to fly away. You will then have time to roll it up gently and kill them as they make their appearance. Repeat this night and morning for a short time and you will soon lessen their numbers, neglect it and doubtless you know the effect from previous experience—you may loose all your first plants. This is the only effectual method of getting rid of them; save covering the plants tighly with millinet or glass boxes. I have tried soot, wood ashes, air slacked lime, scotch snuff, tobacco water and Peruvian guano, and nothing has been so thorough as catching and killing. The guano has had a better effect than any of the others, either by invigorating the plant and enabling it to out grow the bugs or keeping them away by offensive smell.

Squash Bugs.—Search for the "big squash bugs." Take a pail or watering can half filled with strong brine or strong guano-water, catch them by hand as soon as seen and pop them quickly into the liquid. You must be resolute and make no compromise if they *do* stink or they will cheat you and get away. I have often thought that if a few tons of them could be collected they might be serviceable as an article of exportation to China for the purpose of manufacturing into *stink-pots*, especially now in time of war, for I know of nothing that can be more offensive.

A Constant Supply of Vegetables.—To have a constant supply of tender kitchen vegetables it will be necessary to repeat the sowings of peas, string beans, early Bassano and Long Blood beet, sweet corn, summer crookneck squash, spinach, early short-horn carrot, lettuce, radish, mustard and cress. In order to have these vegetables in the best condition for the table, they must be sown on warm, rich ground that they may grow and come to maturity as quickly as possible, for the quicker they grow the more sweet, tender, delicious and wholesome they will be; and the slower the more coarse, hard and strong, especially the lettuce and radish.

Lettuce.—When the lettuce are about half grown, or a week or ten days before they are wanted for use, take each plant and collect its leaves together and tie a piece of string or bass-wood bark around it and in a few days it will be as white as the heart of a cabbage and quite sweet, tender and crisp.

Cabbage.—If a few early cabbages be tied in the same way it will forward their hearting up a few days.

Cabbage and Cauliflowers. — Plant a second supply of early cabbage and early Paris cauliflower as recommended last month. Also a good quantity of Drumhead or Flat Dutch cabbage for winter use.

Peas.—When the peas are up three or four inches high it will be time to hoe earth up to their stems, and when they are six inches high it will be time to stick them, by placing fan shaped boughs along each side of the row for the peas to clime upon.

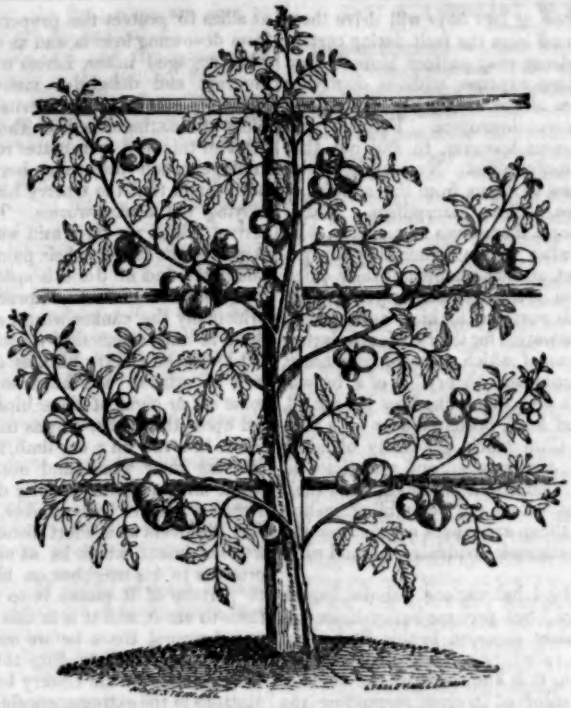
Preparing the Celery Trenches. — About the first of June will be the time to plant out the celery in the trenches. So prepare the trenches between the first rows of the peas that were sown five or six feet apart. Stretch a line and mark out the trench two feet wide, then dig it out one foot deep and throw the earth alternately on each side. Now wheel in about five or six inches thick of good rotten manure; spread it in, well mixing it with the bottom soil.—When done, if dry weather, give it a thorough good soaking of water and rake it smooth.

Planting out Celery. — Choose a dull day, if possible, but do not wait too long; stretch a line down the middle of the trenches; then with a little garden trowel take the plants up separately from the nursery bed, being careful to preserve a ball of earth about their roots; pick off all the decayed, crooked or broken leaves and suckers about the collar of the plants; then plant them a foot apart along the middle of the trench; press them in pretty firmly with the hands and give a good soaking of water. If the weather should prove hot and dry they will require watering every afternoon as soon as the sun has passed off a little, say five o'clock or so; give a good quantity so that the water will soak to the bottom of their roots. Directions for earthing will be given next month.

Tomatoes.—If a stake was driven to each plant at the time of planting, as recommended last month, it

TOMATO RACK, AND VINE AS IT APPEARS WHEN FIRST PLANTED.

will be time now to nail on some strips of wood to form a sort of an espalier to train the plants upon. Take a stout strip of wood and nail along on the top of the posts that will keep them in their proper places;



TOMATO RACK AND VINE AS IT APPEARS WHEN FULLY GROWN.

then nail others at a foot apart lower down, to within a foot of the ground. If sawed strips cannot be had, long thin polls will answer perfectly well. It will then form a trellis, somewhat resembling the above engraving, which is a correct likeness of a plant grown by me in 1856, and is but a fair representation of a great many, only that it does not show half the number of fruit which had ripened and been picked, for it was taken late in August. I have grown them so for many years and find that they ripen more perfect fruit this way than any other. Train the main stem right up the post, and when it has set the first bunch of fruit pinch out its leading shoot to one leaf above the bunch of fruit; it will immediately push another leader and also throw out laterals from the bottom. Train out one of these laterals on each side of the main stem as shown in the cut, and when they have set the first bunch of fruit pinch out the leader to one leaf as advised for the main leader.—They will immediately push again and as soon as another bunch of fruit is set repeat the pinching.—Train out other laterals a foot above the lower pair, and so on to the top of the trellis. Cut out every superfluous shoot as soon as seen; cut them out to the axil of the leaf but do not injure the leaf.

To Save Tomato Seed.—Save the first finest, smoothest, roundest and largest fruit. Repeat this a few years and you will soon have a fine sample of tomatoes. I have adopted the plan, and I now have them, not flat or wrinkled all up, but as round as an orange, and as smooth and large as the largest Northern Spy apple. Josiah Salter.

Rochester, N. Y.

BIRDS—AGAIN.

Messrs. Editors:—I have always been an admirer of birds—the denizens of the air. They have always appeared interesting to me, not only from their song, but their lively, interesting habits and beautiful plumage. In my youthful days I was taught that it was wrong to harm birds.

Flowers have been called "the poetry of nature," a compliment which might be applied with even more justice to birds; which not only vie with the tulip and rose, in the splendor and beauty of their colors, but in their sprightly and joyous movements, their elegant and graceful forms, and more than all, in the variety and sweetness of their melody, may be said to embody the very soul of poetry. To study the character and habits of this most interesting portion of "animated nature," has been to me highly pleasing and instructive.

Singing birds are undoubtedly for the most part, found near the habitation of man, and commonly follow the track of cultivation. This is part owing to the protection which he affords and the greater facility of obtaining food.

I consider birds are benefactors as well as injurious to the husbandman. They destroy millions of grubs, caterpillars, larva, and aphides, which would have ravaged his crops; but at the same time, some commit depredations and havoc upon his fruit and seeds. The wisest course is to frighten them from the trees and garden at such times, or from the portion of it in which they can be prejudicial, but to leave them to visit it unmolested whenever and wherever they cannot be mischievous. Thus in early spring, and

during cherry time, one or two boys will drive them away and keep them off from the fruit during certain seasons, and the gardener may protect himself from injury at a very trifling expense, without depriving himself of the services of the most sharp sighted and successful of all insect-destroyers. Farmers and gardeners are beginning, however, to find out that birds are their most useful allies. Nothing in the insect tribe comes amiss to them, from the aphides of the rose bush to the hedious caterpillars. And if they do sometimes treat themselves to a cherry, who can blame them, if after such a dinner they fancy a little fruit for a desert, and who know but their quick eye perceived a worm in the very cherry you grudge them? "The laborer is worthy of his hire," and man can well afford this compensation for their tireless industry.

THE CHERRY BIRD, of which your correspondent "I. P." desires "a complete history," is of a brownish grey color, with a deep black line from the nostril, over the eye, the hind head, bordered over by a slender line of white. Chin black, gradually blending into greyish brown. Six or seven, and sometimes all the secondaries furnished with a prolongation of their shafts of a vermilion color, and resembling sealing wax. Occasionally these appenages are seen on the tail-feathers, and sometimes individuals are found without them.

This well known bird has various popular names. Those of "Cedar bird," but perhaps better known as "Cherry bird," are most common in this State. In Massachusetts it is called "Canada robin," and by the French Canadians it is known under the name of *Récollet*, from the color of it crest resembling the hood of that religious order. It is also called the "brown bird." It is distinguished for its beautiful silky plumage, the gentle fondness of its disposition, and of its gluttonous habits. They arrive from the south about the middle of April, generally in flocks, and feed principally upon insects until the ripening of mulberries, whortleberries, grapes and cherries. At this season they are well known pests in the garden. They are best known, however, for their fondness of cherries, which they devour with great greediness.—They are not, however, exclusively frugiverous, but repay the comparatively unimportant injuries which they inflict on man, by ridding trees of the small beetles, caterpillars and canker worms with which they are infested.

At the time of the ripening of cherries they are well known to horticulturists as great pests. And should we stop here in our investigation into the character and habits of the Cherry bird, we should be compelled to admit they had but little to recommend them to the tender mercies of the cultivator of Ox-Hearts and May Dukes. But we are happy, however, to notice that the usefulness of this bird to the cultivators of fruit, is at the present time more generally acknowledged than it was when Mr. WILSON wrote its history. The author supposed that "the use of the Cherry bird to the farmer consists principally in their agency in the transporting various kinds of seeds and berries on which they feed, the action of the stomach not injuring their vegetative powers. In other respects, however, their usefulness to the farmer may be questioned; and in the general chorus of the feathered songters they can scarcely be said to take part. We must rank them, therefore, far below many more homely and minute warblers, their neighbors, whom Providence seems to have formed both as allies to protect the property of the husbandman from devouring insects, and as musicians to cheer him while engaged in the labors of the field, with their innocent and delightful melody." Such was Mr. WILSON'S opinion of the merits of the Cherry bird.—Since this distinguished ornithologist's time, the character of this bird is in better repute, we trust, among intelligent and discerning horticulturists; it having been found that the Cherry bird is very useful in destroying the canker-worms. The period from their arrival, which we have said was about the middle of April, to the time of their pairing, which takes place about the first of June, is spent by these birds congregated in small flocks, in procuring their insect food, principally the canker-worms and small caterpillars. And in this connection we would notice the social habits of the Cherry bird, as observed by ourself as well as others. We have seen a flock, containing some six or eight of these birds, after having silently fed upon the canker-worms to repletion, seat themselves in a row on a dry limb, in a state of listlessness, pluming their wings, and occasionally lisping their feeble note, and thus quietly digesting their meal.—Presently one of their number, more vigilent than the rest, discovers at a short distance from the perch, a well-fed insect, which he at once seizes and politely presents to his neighbor on his right, who declining to partake of it passes it to the next, who also refuses to eat it, and it is in this way sometimes passed round several times before one can be found to accept it. Notwithstanding this disinterested trait in the character of the Cherry bird, they are sometimes gluttons in the extreme, gorging themselves with fruit, until no more can be swallowed, and even in some cases, filling their throats so full as to cause suffocation, resulting in death. Although we have said before, that these birds are the personification of mischief to the cultivators of fruit, more especially the cherry, yet, in view of the many insects, particularly that pestiferous one, the canker-worm, which they destroy from the time of their first arrival, to the ripening of our early fruits, we should pause when meditating some murderous design upon their lives.

Springside, May, 1857. BEMENT.

WHY DO FARMERS SO GENERALLY NEGLECT THEIR GARDENS?

MESSRS. EDITORS:—There are leisure moments for a farmer to cultivate a garden if he will, and have a good one too, but

A angles after a warm shower, when he should be transplanting.

B begs his seeds of his neighbors, and is either cut short or must wait until others are done seeding.

C cuts and hauls his wood, which should have been done in the winter.

D drives a fast horse, and must as frequently as possible show himself on the road, believing himself to be the most important personage in the community.

E either dislikes garden sauce, or is too lazy to attend to it.

F forgets to manure his garden in the fall with decomposed manure, and is obliged to use that which is unfermented, and altogether unfit for the purpose.

G goes to law with his neighbor for some imaginary damage done him or his, getting fleeced twice, once in time and once in money, but is sure to "gain" the suspicions and distrust of the neighborhood.

H has many irons in the fire; some are sure to burn, and among those are his garden.

I, ignorant man, would not pay the postage on the best agricultural paper in the country, even if it were forwarded gratis. His judgment is very great in the management of a farm or a garden, and his friends come to the same conclusion while visiting his premises.

J obs it for monied men.

K kneels to the shrine of the curse of the world, Debt, and is obliged to run at every man's call.

L looks to his own interest, by watching his embarrassed neighbor, in order to know when to "strike" a good bargain, and double his money.

M manages to run his face for a little more land, while he has twice as much as he can properly till, and must of necessity give his whole time and attention to some saleable crop, in order to free himself.

N now and then pettifogs a little, and gives his spare moments to the law.

O on all such occasions visits the bar-room or grocery.

P preaches occasionally in the school-house, and must look well to his text, depending on his hearers to bring in the sauce on donation days, or when friendly visits are made.

Q questions the utility of eating so much fodder, when pork and corn-dodgers are so easily made, and set so well on the stomach.

R rather inclines to speculation; thinks he will sell or let his farm and go into trade, and makes his calculations accordingly.

S sleeps the best part of his time away, which is in the morning.

T takes a trip to the Far West, is delighted with the country, sells out and moves off, and the next we hear of him is that the "shakes" have a mortgage on him.

U underrates the value of agricultural papers, after returning crumpled and soiled the one he has borrowed; knows the biggest part to be lies, got up on purpose to cheat the farmers.

V varies somewhat from the rest; holds town office, and is fond of political strife.

W watches the signs and the times, has his almanac days, and plants in the moon, whether the ground is fit or not.

X is about X—can play on a fiddle, and sings in church, and all leisure moments are spent on his "sawa," and sol do rols.

Y yearns to be somebody else, or in some other business, is very much out of health, can't eat but little, for the reason that he "don't raise it."

Z, zounds! makes up his mind as he looks through the open window and discovers the tops of his last year's onions, parsneps, beets and carrots sticking up out of the ground, that if he hoes them a little he will have as good a garden as his neighbors, and much better than he had last year, for they have a whole year the start.

&c. is persuaded to subscribe for an agricultural paper, which is "the best means of rectifying the evil." The first year there is created in him a love for the beautiful, which grows with his growth, and strengthens with his strength; he is soon posted in the treatment of soils and manures, the effects of which will first be visible in his garden.

Seymour, Allegany Co., N. Y. J. C. Adams.

CURRANT WORM.

Messrs. Editors:—I have been noticeing an inquiry in the February number of the *Genesee Farmer* from D. C. Housberger, Rainham Center, C. W., in regard to the currant worm. The worm he alludes to is no doubt the gooseberry caterpillar that has proved so destructive in many parts of Canada, that the gooseberry and currant bushes have nearly disappeared. I will give my remedy which has proved so satisfactory to me that I think your correspondent and all those troubled with the wormy pest may benefit by the same.

About five years ago I found my currant bushes infested with multitudes of these caterpillars. I could not bear the sight, so I declared war and set to work to kill them. I found that my chance was a poor one amongst the miserable old fashioned hedge row system, crowded against the fences amongst the grass, weeds and briers so commonly seen in Canada. I consequently dug up my old hedge row by the fence and cast it over board and changed the sight into a vine border. I prepared a portion of my garden by trenching and filling the trenches with surface soil and fertilizing substances. I then selected strong, healthy currant shoots of the previous years growth, cutting away all the eyes clo-ely to the desired height, leaving several buds at the top. I planted them in rows six feet apart and four feet apart in the rows, from the following improved varieties, large Red and White Dutch, White Grape, Victoria, Cherry, Black English and Black Maples. They all rooted freely. By clean cultivation and regular pruning, I not only have fruit of double the ordinary size, but also much improved in flavor. I cultivate with clean stems; this gives them the appearance of a miniature little orchard and adds largely to the ornamental part of the garden; it also gives me free access to all parts of the bush, and when the worms make their appearance I generally prepare myself with an old tin dish, and on jaring or shaking the bushes they will all fall to the ground or else be found in a suspended form by a silky thread. In this form the old tin dish will be found an excellent means to secure them with. Those that fall to the ground may be easily destroyed by the foot, or by spreading a cloth under the bushes you may take them nearly all. By watering and paying attention to my bushes in the proper season, and probably spending not more than five or six hours in a summer season, I have nought to fear from the wormy pest. S. S.

Humberstone, C. W.

Grafting the Gooseberry.—In the *Farmer*, Vol. IX, page 234, a writer speaks of grafting the gooseberry on flowering currant. I have thought I might graft the currant on the gooseberry prepared as for standards, to stop its propensity for throwing up suckers; I am down on every shrub or flower that has that propensity. The flowing currant is a favorite of mine; it far surpasses some of the new shrubs, but I would not admit one into a good yard, unless I could grow it on some stock that would not sprout. I have a tree sixteen years old, eight feet high, length of body five feet, the limbs droop naturally and make a perfect weeping tree; a mass of flowers when in bloom; it is slender, and has to be kept tied to a stake. I have never suffered a sprout to grow, as it stands alone I can keep them down. Amateur.

PLANTING TREES ON PRAIRIES.

Messrs. Editors:—A lonesome place is the prairie without trees, shrubs, or rocks to fence the field or furnish shade for man or beast. The planting of the peach will prove, I doubt not, profitable both for fruit and fuel. It grows rapidly here, and through ordinary winters in most localities resists the frost successfully. Few kinds of timber will grow the same amount of fuel in so short a time and with little care as the peach.

The cotton wood grows readily and rapidly when cuttings are stuck in the soil, and soon forms considerable shelter for animals. Groves of these could be grown in low places in a short time, so as to protect animals considerably. These also furnish fuel rapidly, and in a few years form stately trees. In many places this species of wood has grown in fifteen years to six inches in diameter and thirty to forty feet in height.

For the growing of fence posts, the locust is the most vigorous and certain grower, and when put out upon a well pulverized soil, soon makes a handsome tree. Where timber is the object, the locust after the first year should be closely pruned of all side shoots. This will cause them to grow tall and straight. It is not so long a job as many imagine to grow fence post, or even rails in this way.

The western farmer should pay as much attention to the planting of trees as of corn, and give them as close attention as he gives his most remunerative crop. If the prairie land holder looks not to the growing of timber, the broad acres which he may leave to those who come after him will be of little value.

Illinois. Jno. Sanfield.

Starting Early Plants.—As very few of your readers will make a hot bed to start plants for early fruits, the following may be of service. On reading an old *Iowa Farmer*, (which by the way is a good paper,) I noticed a rather ingenious, as well as (to me at least) a new method of forwarding plants, such as cucumbers, melons, &c., simply taking the flat turnip and dig out the fleshy part, leaving the shell, which is to be filled with soil, and place in a box, (an old raisin box will do,) filling in sufficient to hold the cups in position steadily; plant the seeds in the cups, which may be placed out as soon as the weather will permit, and not disturb the roots of the plants in the least. Tomatoes may also be started in the same way, and the fruit obtained earlier than by the old process of pulling and transplanting. This is not a good and seasonable article, I am well aware, but having recently seen it, the suggestion appeared to me practicable, I concluded to give it to you to publish or light your cigar. D.

Gates.

Horticulture in Oregon.—Tree planting is still carried on very enthusiastically in Oregon, as California buyers still take all the apples they can get at from five to ten dollars per bushel; all the last crop are gone, and I understand some are willing to enter into engagements for the next season. There is also quite a trade carried on in nursery trees to that market, I have heard it intimated by nurserymen at three millions of trees this season. This I think is too large a number, but still it is considerable, with signs of its increasing. J. M.

Salem, O. T.

Sulphur to Kill Rose Bugs.—When visiting in and around Richmond, Ind., last autumn, I was delighted with the abundance of splendid roses that ever met my view, and which seemed then to be in their glory. I enquired of several if the bug had not visited them. The reply invariably was, "oh yes, but we destroyed them with sulphur." The plan for so doing was to put sulphur (the hard) on a plate under the bush, and set on fire, and then cover something over the bush while the fumes lasted. I remarked that sulphurous inhalations must agree with the bush, for they appeared extremly healthy, a few of the under leaves only dropping off. M. S. B.

Aurora, N. Y.

A List of Good Petunias.—Prince of Wales—large, dark purple. Hermione—large, lavender and white striped. Glory of America—small, but very pretty, striped. Alfred—bright salmon color, of good form and substance. Beauty of Yorkville—bright pink, white throat, very pretty. Great Western—large and fine. Hebe—veined, very handsome. Amazon—dark, purplish crimson. Eclipse—very fine. Enchantress—large and showy. The above will be found to comprise a superb collection of this showy bedding plant, and may be relied upon for length of duration and beauty of bloom

Rochester, N. Y. W. T. Goldsmith.

Spare the Owls.—In the March number of the *Genesee Farmer*, I observed an article headed, "To Catch Owls." The plan proposed, I doubt not would be very efficient for the purpose; but from the frequent complaints made by your correspondents of the destruction of fruit trees by mice, I should think it more advisable for all keepers of poultry to prepare a place for them where they would be safe from owls, and let the owls live to destroy the mice.

A Subscriber.

To Raise Large Onions.—Sow the seed at the usual time in the spring, very thickly, and in poor soil, generally under the shade of a fruit tree; and in such situations the bulbs in the autumn are rarely found much to exceed the size of a large pea. These are then taken from the ground and preserved till the succeeding spring, when they are planted in rows fourteen or fifteen inches apart, and a foot apart in the rows, and they afford plants which differ only from those raised immediately from seed in possessing much greater strength and vigor, owing to the quantity of previously generated sap being much greater in the bulb than in the seed. The bulbs thus raised are often of greater size; and, being more mature, they are with more certainty preserved in a state of perfect soundness through the winter than those raised from seed in a single season.

"Pliny says, the Romans sowed the seeds of Basil with maledictions and ill words, believing that the more it was cursed the better it would prosper; and when they wished for a crop, they trod it down with their feet, and prayed to the gods that it might not vegetate."

Hoe all your crops as soon as the drills can be distinguished. Recollect that more weeds can be destroyed in an hour when young, than in a day when they have obtained a good foothold.

Ladies' Department.

A LADY'S OPINION OF THE WEST.

Messrs. Editors:—During a four years' residence in Iowa, I have watched with some interest the ways and doings of our western farmers, comparing them with the same class at the east. Though most of them have emigrated here from the eastern states or Ohio, candor compels me to say they have degenerated from neat and thrifty farmers, to shiftless and slovenly ones, and for this there must be a cause. They come here with a desire and determination to get rich, even at the sacrifice of those social qualities which are so essential to the well being of any community. They take up large tracts of land which they cannot possibly cultivate. Break up and fence off a portion for immediate use; the rest lies a barren and unoccupied prairie—making of course a widely scattered population. Even when this is not the case, and men are content to live without owning all the land that joins them, there is a lack of desire for home improvements. This mania for large farms seems to be on the increase. Men are wishing to sell their farms of one or two hundred acres, and go farther west, where they can get more land, when that they now have, has never been half cultivated. This, it seems to me, is a great error. The west is undeniably a country of vast extent, unequalled fertility of soil, and unbounded resources for wealth, to all who choose to emigrate hither. Its beautiful undulating prairies actually seem to woo the plough, and if men could only be content to own but one or two hundred acres of land, and cultivate it well, the west would indeed in a few short years be the garden of America. But notwithstanding the natural advantages the western country possesses over the east for the purposes of gardening, such as a rich and loamy soil, freedom from stones, &c., few avail themselves of the privilege which nature has thus thrust upon them. A good garden here I have never seen, (you will understand I am speaking of the country not of towns.) It is true you will now and then see a small spot fenced off with rails perhaps, planted with cabbage, a few beets, and may be a few vines, struggling with the weeds for the mastery, and the weeds generally come off first best in the contest. Now almost every farmer will concede that a good garden is the most productive part of the farm; why then is it so strangely neglected? Is not a neat yard filled with shrubbery, and a well kept garden, indicative of taste and refinement in its owner? But our western farmers seem to have little idea of the influence that *home* attractions have on the minds of their families. They forget that the little ones they are rearing will soon be men and women, with as little cultivation as the prairies given them as an outfit. We have not the facilities of the eastern states for education, for our schools are as yet in their infancy; where then are we to look for the training of our future men and women of the west, to habits of taste and refinements if not at home. Then let me iterate and reiterate to the farmers of the west, and those who mean to emigrate here, choose a location you mean to make a *home*, plant trees around the homestead, help your wives and daughters to cultivate flowers—protected from the cows and pigs by a good fence. Grudge not a few shillings for choice seeds; spend an hour occasionally with them in the garden, suggesting new improvements, aiding them by advice, and what will be more effectual, a little digging with the spade; and rest assured in a few years there will be a new era in the life of the western farmer. The comforts of home are not to be weighed in the balance with your uncultivated acres; and if you are in haste to be rich, choose that best of earthly riches, springing from a well balanced, well cultivated mind, for without this, the best filled purse only places you a little above the scale of creation, with the brutes that perish.

Clay, Washington Co., Iowa. Viola.

THE CULTIVATION OF FLOWERS.

Messrs. Editors:—Since the earliest history of the world, the mythological goddess, Flora, has had her worshippers, and has probably contributed more real happiness to mankind than has sprung from almost any other source. She has been the means of refining the human heart, and rendering it susceptible of all the softer emotions of our nature, and has a language peculiarly her own—speaking in accents soft and low—of brightening our pathway through this vale of tears, and causing our thoughts to turn toward the great God who created such exquisite and diversified beauty for our enjoyment, and renders the world in one sense a prelude to what we may expect in a brighter and better sphere.

If I ever am inclined to feel sad or troubled, and there are flowers dispensing their fragrance near me, I go among them, and in admiring so many of the Creator's blessings bestowed upon me, soon dispel any unpleasant thoughts, and forget that they ever existed.

The cultivation of these sweet emblems of purity and innocence, is well calculated to render our hearts happier, and make us wiser and better. It begets a kind of enchantment—a feeling which those only who love flowers can fully appreciate. It makes me sad to think that any one should ever grudge a little spot of ground on which to grow those lovely companions of prosperity or adversity. We know there are *some* such, but hope for humanity's sake they are few, and that as refinement advances all such will be converted to the loving of flowers. For what were they created, unless to adorn this earth, and command our admiration and reverence for the exquisite workmanship and manifold design of their Maker? It seems as if the person who would spurn a flower, would spurn the richest blessing as a gift of Heaven.

Lockport, N. Y. A Lover of Flowers.

Forest Flowers.—In vol. XIII., page 288, of the *Farmer*, an authoress of Canada asks, "Where are the lilies of the woods, the lovely and fragrant Pyrolas, the Bloodroot, the delicate and sweet scented Mitchella repens, the spotless Monotropa, with Orchis of many colors?" I can tell you where some of them are, and they seem to be perfectly at home—not in Canada, but in Saratoga county, N. Y. The north side of our garden, a little lower than the other part, is a soft black soil, the depth of which I have never fathomed. Currant bushes are growing six feet from the fence; close to the fence I have planted every known wild flower that was an inhabitant of low woods that I could get. The soil, with the constant shade from the current bushes, makes as good a spot for them as could be desired. They want no manuring or hoeing; merely weed them by hand, if anything intrudes upon them. A Farmer's Wife.

Editor's Table.

THE RURAL NEW YORKER.—For some time past we have quietly submitted to great injustice from our neighbor of the *Rural New Yorker*, and know no better way of obtaining redress than to appeal to our readers—to the farmers of the country—and to our brethren of the Press. We have written an article stating what we believe to be the facts of the case; but on consulting a legal friend he advised us not to publish it, for fear of an unpleasant libel suit—for though we have no doubt as to the truth of the statement, yet it is one thing to *know* a fact, and another to *prove* it. We have concluded, therefore, to give such facts only as admit of easy and unmistakable proof, and leave our readers to draw their own inference.

Last year we expended several hundred dollars in procuring original drawings and engravings of houses, plants, trees, &c., having secured for that purpose the services of one of the best draftsmen in the country. Some of these engravings were given in the *Rural Annual*, and others in the *Genesee Farmer*. We also allowed several of our nurserymen to use them in illustrating their show-bills, &c., and they have thus been rather loosely scattered around the various printing establishments of the city.

In the last issue of the *Rural New Yorker*, (May 23,) there appears a beautiful cut of an American Arbor Vitæ, in all respects a *fac simile* of one we had drawn and engraved for our *Rural Annual*, from a specimen growing in the suburbs of this city. It will be found in the columns of the *Farmer* for this month. Those of our readers who take the *Rural* can thus compare the two cuts, and see if they can discover the least difference.

In the *Rural* of May 9 there is a cut of Sweet William, which is marvelously like a cut engraved for the *Farmer*, and which appeared in our last volume, page 161. The *Rural* man has, apparently, taken his knife and cut off the engraver's name. Otherwise the cut is precisely the same, and is given without a word of credit.

In the *Rural* of May 2 the editor says:

"A correspondent, after examining the engraving which *we gave* in the last number of a Dwarf Pear Tree, asks if dwarf trees always grow as straight limbed, and of so beautiful and graceful a form," &c.

Now, on turning to the "last number" of the *Rural*, (April 25,) it will be found that the cut which "*we*" (the *Rural*) "gave," is none other than the cut which WE (the *Genesee Farmer*) gave in our February number. To disguise the cut as much as possible, however, the stem has been shortened a little, at an expense, perhaps, of fifty cents, whereas it cost us *twelve dollars*, having been drawn from an actual specimen with great accuracy, and engraved with much care.

Our file of the *Rural* is here incomplete, and we will continue our examination no further at this time. We would ask if such conduct is reputable and *honest?*

One word more. In the February number of the *Farmer* for last year, we alluded to an intimation in the *Rural New Yorker* of Jan. 26, that the cuts in a single number of that paper cost nearly $50. We showed conclusively that the cuts did not cost the *Rural* one-tenth of that sum; that in fact the *Rural was paid eight dollars for inserting one cut*, or *more* than it paid for all the other cuts. To this article the *Rural* has made no reply. It *could* make none. With all its boastful pretensions, the *Rural* notoriously expends next to nothing on agricultural and horticultural illustrations. It appears to be perfectly satisfied with any old, cast-off cuts of the *Genesee Farmer;* and the frequency with which these are inserted in its pages, indicates its high appreciation of the source from which they are derived. Let us look over such of the papers of this year as we now have on hand:

In the *Rural* of February 21, there are cuts of Hovey's Seedling, British Queen, and Elton strawberries. These will be found in the *Genesee Farmer* for 1852, pages 90 and 91.

In the *Rural* of March 21, there is a cut of Phlox Drummondii, which will be found in the *Farmer* for 1852, page 159.

In the *Rural* of March 28, is a cut of Golden Bartonia, which will be found in the *Farmer* for 1852, page 191.

In the *Rural* of April 4, is a cut of Salpiglossis, which will be found in the *Farmer* for 1853, page 222.

In the *Rural* of April 11, is a cut of Petunia, which will be found in the *Farmer* for 1851, page 75.

In the *Rural* of May 2, is a cut of a Gothic Farm Cottage, which will be found in the *Genesee Farmer* for 1853, page 249.

In the *Rural* of May 2, is a cut of a Dwarf Pear Tree, which will be found in the *Genesee Farmer* for 1855, page 351. Of this cut the *Rural* man says: "*We give* a very correct portrait of a tree growing near this city. Although different from the engraving *we gave* last week, [also taken from the *Farmer* without credit,] it is a beautiful tree," &c.

In the *Rural* of May 9, are cuts of a Dwarf Apple and Dwarf Cherry, which will be found in the *Farmer* for 1855, page 351.

We do not say that the *Rural* did not come honestly by these engravings. As cast off cuts it may have paid a small sum for them; but, be this as it may, it is certainly a new development of the law of "Progress and Improvement"—of which the *Rural* boasts so much—to give these cuts as though they were original.

THE friends of the *Genesee Farmer* will be glad to hear that our circulation this year far exceeds our most sanguine expectations. This unlooked for success, though grateful to our feelings, is attributable mainly to our numerous correspondents, and other friends who voluntarily act as agents. Subscribers are still coming in freely:—we have to-day received from N. J. SLOAN, post master at Fredericksburg, C. W., a club of one hundred and twelve; and from CHAS. MCGLASHAN, Esq., of Moore, C. W., a club of one hundred and nineteen subscribers!

Such has been the demand for back numbers that we are entirely out of the January number, and have been compelled to send off these and many other orders without it. We are, however, having a new edition struck off, and will forward this number in a few days.

DEVON HERD BOOK.—SANFORD HOWARD, Esq., editor of the *Boston Cultivator*, gives notice that the third volume of the *Devon Herd Book*, which he has been engaged in preparing, will be ready for delivery in July next.

Dry Weather with Frequent Hoeings better for Garden Vegetables than a Wet Season.—A correspondent writes: "The summer of 1854 was very dry, and by frequent hoeings the weeds in my garden were completely subdued. The result was that I had good crops of all kinds of vegetables. My carrots yielded eight bushels to the rod—1,280 bushels per acre; melons extremely fine, and, in short, all my crops were very superior. The next summer (1855) was wet, and the weeds in my garden would grow in spite of all the hoeing I could give them. Hoe one day, and the weeds would be growing all the better for it on the next. The result was that with all the care and attention that could be bestowed upon them, my vegetables looked puny and sickly all summer, and yielded very inferior crops."

Turnip Fly.—A correspondent writes that he has, for the past three years, at the recommendation of an experienced gardener, sown a row of mustard seed between every two rows of ruta bagas, as a remedy for the fly. The result has been very gratifying. The mustard came up first, and appeared to be preferred by the flies—at all events, they fed upon it till the ruta bagas were out of harm's way. Our correspondent thinks it better to sow the mustard between the rows, because it can the more easily be destroyed by the horse hoe. If the ruta bagas are singled out in the rows with the hoe—as they always should be—we do not see any objection to sowing the mustard and ruta baga seed together, in the same drill. Perhaps, however, our correspondent is right.

Hen Manure for Onions.—A correspondent writes: "When onions are coming up scatter hen manure very freely over them, (this is one of the best manures that was ever applied to onions,) and sift a small quantity of sand with it. When they are fully up thin them out so as to leave but one onion in a place. Keep the ground loose and free around the remainder from the time that they are up till they are 'pulled.' A most important thing to be done in raising onions is to keep them entirely free from weeds, as all farmers know that they will not grow where they are choked with weeds."

Cure for Garget.—We have repeatedly recommended the hydriodate of potash as a cure for garget. It is undoubtedly the best remedy for this disease yet discovered. J. W. Fowler, of Yorktown, N. Y., writes us that he has used it with the most satisfactory results. He prepares it as follows: Put 44 table-spoonsful of water into a bottle and then add one ounce of hydriodate of potash and shake it well till it is dissolved. Give the cow a table-spoonful three times a day in a little warm bran or meal slop.

Cabbage for Stock.—A Canadian correspondent says: "We have sown about an acre of cabbage of late years, and consider them excellent fall feed for stock. Sow the seed in hills about a yard apart each way. They require good land with plenty of manure; but if the season prove favorable they will yield a large quantity of food." The same writer also says, "Last year we sowed an acre of rape, and found it a great benefit to young lambs after taking them from the ewes."

Planting Potatoes in the Fall.—My *practice* of planting potatoes in the fall got a *little disturbed last winter*. Except when *unusual* pains were taken to guard against frost, they were found to be entirely destroyed this spring. And in view of the whole subject now, my advice would be to any one thinking of adopting my plan published in the March number of the *Genesee Farmer*, for planting potatoes in the fall, that while raising your potatoes from seed planted in the fall, would for many reasons be the great disideratum accomplished, still great care and judgment are indispensable, and that the safest and best way would be to consider no fall planted potatoes entirely secure, unless in addition to a deep covering of earth, the surface is lastly covered with a considerable thickness of straw, which would be rather too expensive beyond any thing more than for a small patch, such as I intend to plant next fall, and each succeeding one, until a better plan is found.

E. A. B.

Oxford, Chenango Co., N. Y.

Sprouting Potatoes.—In a private letter, our correspondent, S. W., says: "It is all a humbug about sprouting potatoes to forward them. If put into a box with earth, and buried in a manure heap of horse dung, ten to one they will heat and rot before they sprout. Potatoes planted the 25th of April have no longer sprouts to-day (14th of May) than the potatoes left in the cellar, yet they will go ahead of those in the cellar if the latter are planted to-day. Warming potatoes in the sun before planting, enables them to sprout quicker when planted."

Carrots on the same Ground every Year.—Our esteemed correspondent, H. H. Taylor, of East Rodman, Jefferson Co., N. Y., says: "I have raised carrots four years in succession on the same land, and believe it best to set apart a piece of land for this purpose, if manure can be obtained to put on every year free from all kinds of weed seeds. The longer you grow carrots on the same ground the cleaner and mellower it will be, provided they are properly cultivated. My fourth crop was better and easier raised than the first."

Correction.—In the article on the Cultivation of Indian Corn in Kentucky, in the April number, there is a material omission in the fourth line from the bottom. It reads thus: "the bar or shear, as the size of the corn will admit, is run next to the corn for the first time." Whereas it should read, "the bar or shear, as the size of the corn will admit, is run next to the corn, *and the dirt is thrown from the middle* for the first time."

Sowing Mangel Wurzel in the Fall.—A correspondent at Guelph, C. W., says: "I have grown mangel wurzels for the last two years, and think them the finest roots grown, for breeding ewes, milch cows and pigs. I sowed four or five ridges last fall, and will inform you how they succeed in due time." We hope our friend will do so.

Water Lime mixed with skimmed milk is said to make an excellent drab-colored paint. It will adhere well to wood, stone, brick or mortar, where oil paint has not been used, and is very hard and durable.

THE TURNIP FLY.—Mr. G. GRAHAM, of Woodstock, C. W., says: "Turnips should be sown thick on account of the fly. I have found it a good preventive, besides the usual quantity sown in the drills, to sow a pound of seed per acre broadcast, before rolling down and sowing the drills."

THE RURAL ANNUAL.—I have hastily looked over the *Rural Annual*, and do not hesitate to say that there is more valuable information to the owner of a spot of tillable land, condensed within its pages, than I ever read before in the same space. P. C. REYNOLDS.

Palmyra, N. Y.

NEW ADVERTISEMENTS.—Read the advertisement of ATKIN's Automaton, or Self-Raking Reaper and Mower, and send for one of the pamphlets containing certificates of the value of this celebrated machine.

C. M. SAXTON & Co., offer some more good books.

A. LONGETT sells all kinds of Artificial Manures. We have had some dealings with him, and found him prompt and his fertilizers good.

A. GORDON & Co., offer some new testimony in regard to the value of their machines, especially of HILDRETH's Gang Plow. Orders may be sent to A. G. & Co. with the utmost confidence.

THE GENESEE FARMER for May is a choice number; it contains a large number of short essays on various subjects written in competition for certain prizes of books, offered by the Editor. These essays show most conclusively that *multitudes* have the *ability* to write for an agricultural paper, that very seldom do; it requires some extra inducement to bring them out. We have selected two of the number, on Lady Equestrianism, which we commend to the attention of all interested in that subject; here you have arguments on both sides of the question, for and against; examine them well and see which are the most conclusive, and if any of you have any thing further to offer on the subject, say on.—*Cayuga Farmer and Mechanic.*

Notices of New Books, Periodicals, &c.

HOOPER'S WESTERN FRUIT BOOK: A Compendious Collection of Facts, from the notes and experience of successful Fruit Culturists, arranged for practical use in the Orchard and Garden. By E. J. HOOPER. Cincinnati: MOORE, WILSTACH, KEYS & Co. 1857.

A good "Western Fruit Book" has long been needed. It was the original design of Mr. ELLIOTT to call his work the "*Western* Fruit Grower's Guide," but, perhaps to please the publishers, was sent forth as the "*American* Fruit Grower's Guide in Orchard and Garden." To this we have no objections. It is well, for the book is no better adapted for the west than it is for the east. The present book is written and published at Cincinnati, and for that reason, perhaps, is callled a "*Western* Fruit Book." From a slight examination we think the work is in some respects an improvement on previous fruit books, and one which will prove useful to nurserymen and planters in enabling them to select varieties. It is confined almost exclusively to rather brief descriptions of varieties of apples, pears, peaches, nectarines, apricots, plums, cherries, grapes, strawberries, raspberries, blackberries, currants, and gooseberries, with extracts from any published opinions of their merits; together with the lists of fruits recommended by various societies and individuals for cultivation in particular localities. This occupies 307 of the 333 pages in the book,—the apples and pears alone occupying 211 pages. No outlines of fruit are given, but there are some four or five colored engravings.

THINGS NOT GENERALLY KNOWN: A Popular Hand-book of Facts not readily accessible in Literature, History and Science. Edited by DAVID A. WELLS, author of "Knowledge is Power," "Familiar Science," &c. New York: D. APPLETON & Co. 1857.

The character of this work is well expressed by the title. So far as we have been able to examine, the facts mentioned are generally reliable, and always interesting. It is impossible to turn to a page without finding something which, though known before, we are glad to have recalled. The book is principally made up from one of Mr. TIMBS works published in England. The American editor has made many additions and struck out much that was merely local.

VILLAS AND COTTAGES: A Series of Designs prepared for execution in the United States. By CALVERT VAUX, Architect, (late DOWNING & VAUX, Newburgh, N. Y.) Illustrated by 300 engravings. New York: HARPER & BROTHERS. 1857.

This is a book of some 320 pages, finely illustrated, and "got up" in HARPER's best style. It makes an elegant volume; and what is far better, it abounds in good designs and practical hints which cannot fail to be of great use to all about to build. We regard this as the best work that has yet appeared on American rural architecture.

THE AMERICANS IN JAPAN: An Abridgement of the Government Narrative of the United States Expedition to Japan, under Commodore PERRY. By ROBERT TOMES. New York: D. APPLETON & Co. 1857.

To all who have not had access to Commodore PERRY's work, published by Congress, this book will prove of great interest. It is illustrated with numerous engravings, and written in an agreeable style.

AMERICA AND EUROPE. By ADAM G. DE GUROWSKI. New York: D. APPLETON & Co. 1857.

We have not had time to examine this work, but it is highly spoken of.

THE GOLDEN LEGACY: A Story of Life's Phases. By a Lady. New York: D. APPLETON & Co. 1857.

A lady who has read this book speaks of it as "beautiful."

BLACKWOOD'S MAGAZINE.—This old and sterling monthly is reprinted by L. SCOTT & Co., 54 Gold street, New York, and sent to any address, by mail, for $3 per annum. The volumes for 1856 and 1857 are sent, *postage paid*, to any address for $5. Those who did not take Blackwood last year, should avail themselves of this offer.

Inquiries and Answers.

(C. C., Raisin, Mich.) You had better graft your four year old lemon tree next September when the fruit is fully ripened. Take the scion with the leaves on, cut the heel square, and then pare it down on one side with a sloping cut to the pith of the scion; then cut the branch of the lemon tree to fit the scion exactly. Bind it on tight with a little wax cloth or worsted yarn; then tie a little moss tight over the wound to keep out the air. The tree should then be placed in a green house or hot-bed frame *and shaded*. If too large to stand in the frame it may be laid down on its side and the frame placed over it. The frame

should be on the north side of a building or fence, as it is very important to keep the sun off. If well done it will be united and strong in a month or six weeks. If you could get buds the latter part of June, budding would be much the least trouble, but it is difficult to get them any distance as they are so liable to wilt. As soon as the grafts are united the branches of the lemon tree should be prunned back to the graft, so as to leave nothing but the graft to grow.

(E. F., Clinton, C. W.) Millet is one of the best of crops for fodder or for soiling purposes. It produces largely, can be sown late and is well adapted to our dry, hot climate. It draws heavily on the soil for those elements most needed by wheat, barly, oats, corn &c.; and we would not advise its cultivation on the upland portion of a wheat farm. When raised for fodder or for soiling, a rich alluvial soil, abounding in organic matter and which is too loose and low (but not wet) is just the kind of land for it. Large crops can be grown on such land in dry, hot summers when all other forage crops are light. It may be sown any time in June or even as late as the first week in July. If grown for seed it should not be sown too thick, say a peck per acre, for fodder or for soiling two to three pecks of seed per acre will be none too much. You can get the seed at almost any seed store. E. D. HALLOCK of this city has it for sale at $1.50 per bushel.

(J. L., Lancaster, Pa.) Stone-coal ashes contain very little fertilizing matter. They have sometimes a beneficial mechanical effect on the soil; for radishes especially, they are valuable on this account. They are useful for mixing with guano, superphosphate, and other concentrated manures. They are said to prove valuable applied as a top dressing around fruit trees, acting probably as a mulch, and checking the growth of weeds. We have had no experience with them as a dressing for corn or potatoes. The question, "What are they worth?" we cannot answer. Judged by their chemical composition, we should say they are not worth three cents a bushel.

(G. W. THOMAS, Elderslie, C. W.) We believe Hardy's White Mummy wheat and the Prolific Red wheat are winter varieties. We should be glad to have you communicate the result of your trial with them to the *Genesee Farmer*.

(W. S. BRISTOL.) We know of no *certain remedy* for the black knot on cherry trees, or for the curculio on plum trees. Should be glad to hear from those who have discovered a remedy.

(D. F. H.) We have had no experience in grafting the pear on the red or white hawthorn.

DRYING FIGS.—I noticed in a late number of your paper a request for information in regard to drying figs. A relative of ours, residing in St. Augustine, where they raise and cure them to perfection, has, according to request, furnished me with the following receipt: Put the figs in hot, sweetened water; then expose them to the sun two days, or use artificial heat; then put them into the sweet water again; then dry, thoroughly. HARRIET H. MYERS.—*Liverpool, N. Y.*

OUR farming community have been thrown into quite a state of excitement lately in reference to a system of farming, called "Terra Culture," by RUSSELL COMSTOCK. He has delivered two lectures in the county within two months; some sixty or seventy persons attended each lecture, at a charge of two dollars—a money making business. Since attending his lecture at York Springs on the 18th instant, I have read the *Rural Annual* that you sent me, and am far better pleased with it than his lecture, even if it had cost the same money. As Mr. COMSTOCK is from your State, perhaps you are acquainted with him. I should like to know your opinion of him, and also of what he claims to be his discoveries. H. J. MYERS.—*New Chester, Pa.*

We are well acquainted with Mr. COMSTOCK; have had repeated conversations with him on the subject of his alleged discoveries; have listened attentively for ten long hours to his lecture; and candor compels us to say, with SHERIDAN, that his system "contains much that is both new and true, but unfortunately that which is true is not new, and that which is new is not true." In the *Genesee Farmer* for March, 1853, page 77, we fully exposed the absurdity of his pretensions.

I WISH to know if any of your subscribers in Upper Canada have a *full bred* Devon or Hereford yearling bull and heifer for sale. E. T.—*Clinton, C. W.*

The breeders of Canada might promote their own interests by advertising in the *Genesee Farmer*.

IF it would not be too much trouble to you to get a particular piece of information and publish it in the *Genesee Farmer* for the benefit of myself. I think you would find it profitable to a good many of your readers who are similarly situated. The information I want and have sought for in vain in Virginia, is the old plan of farming the Carse of Gowrie and the Carse of Stirling. You are of course aware of the quality and peculiarities of these soils, and it strikes me that the ancient—or to be more expressive, the antiquated—style of draining them by grip and water furrow is better suited to the prices of our lands than the effective, but far more costly mode of tile draining. I have tried that as an experiment, at Mr. PARKE'S depths and find it worth a good deal more than the fee simple of the land. For this reason, we are, to use a lawyer's phraze, "remitted to the original remedy," at least until an effective ditching machine is invented aided by a cheap machine for making draining tile.

WILSON in his *Rural Cyclopedia*—which with deference to your better judgment, I think superior to MORTON—quotes in his article on "drainage," titled "surface drainage," a few remarks of MARSHALL on that subject. I have one of MARSHALL'S works—his *Agriculture*, in which I find nothing of the sort; and I cannot get access to any other. I think it will be found perhaps that he has some remarks touching this matter in his "Elementary and Practical Treatise on the Landed property of England;" London, 1804, quarto, or in an abridgment of that work, entitled "Treatise on the Management of Landed Estates;" London 1805, octavo. If by means of some correspondent or friend in London you can have that worked looked into, and suitable extracts copied, if they can be found, and can do it without trouble, I should be much obliged to you; and I think, as I said in the beginning, that it may benefit others quite as much as it will me.

Our season here has been the most backward I have ever known, and the wheat that was killed by the winter, and more particularly by the cold spell in March which followed a very warm February, cannot rally. A great deal of our wheat all over the State is in that fix. It does not brighten our prospects much to have a freshet on the low grounds, as is just now the case on James River. I have one hundred acres, on nearly all of which my corn was planted, completely covered with water. *—*Virginia.*

Can any of our readers throw any light on this subject?

KNOWING your willingness to assist your readers, I wish to ask your advice concerning a marsh, which I wish to bring into cultivation. It has formerly been a large beaver meadow, containing about twenty acres, laying on

nearly a dead level. There is a little fall on the west end of it. There is a ditch around it, four feet wide and three feet deep, which carries off all the surface water, which, before it was dug, used to flood the whole of it in the spring. The soil is a vegetable mould, partly decomposed, of about four or five feet deep. It is impossible to plow it, on account of the timber, which is buried beneath the mould. The grass which grows upon it is a very tough grass, that the cattle do not like, excepting a little in the spring, when tender. What crop do you consider it best calculated to grow, or what kind of grass would flourish best upon it? I would state that though the surface water is removed, the marsh is still quite wet and soft underneath, so much so as not to bear up a team if the sod were removed. I tried to plow it last spring, but when the plow struck a log the cattle sunk right into it. E. T. —*Clinton, C. W.*

I WISH to enquire through your widely circulated journal, in regard to the fermentation of milk by the time it has been twenty-four hours drawn. On taking down the pans the cream presents an uneven, rough looking surface; on removing the cream from the milk there is very much the appearance of yeast, being frothy, and a crackling noise accompanies the process. I can give no reason why it is so, and would like to know if any of your butter making readers have observed such effects, and can give the cause? My cows have been stabled, fed with cornstalks, with one peck of carrots daily up to the first of March, since which, the same treatment, except hay in lieu of stalks. If you or our readers will explain the above phenomenon I shall be thankful. D.—*Gates.*

I have a hen that wanted to set about four weeks ago, and I placed under her eleven eggs. A short time after I went to the nest and found a number of new layed eggs in it. Thinking it very curious I watched the hen and found she had intercourse with the rooster. She layed all the time she was setting, and continues to lay at the present time, the chickens being one week old. Will some of your correspondents who make fowls their study throw a little light on this subject? B. J. F.—*Corinth, N. Y.*

A FEW days since I set a trap for a woodchuck, and caught one with two white stripes running parallel with his back; when, by accident or design, he spilt his perfume while I was in rather close proximity to his manufactory. Now, I wish to "eradicate" the effluvia, as I never was very partial to cologne or other sweet scented essences, I come to you to tell me what will cure; the preventive I know. D.—*Gates.*

I WOULD like to know the probable age that sheep arrive at, with good treatment; and if it is a better plan to shear once or twice during a year. By inserting the above in the *Farmer*, you will much oblige a subscriber in the back woods of Texas. W. B. C.—*Lockhart, Texas.*

EGG PLANT.—Will some of your correspondents describe the manner of cultivating the egg plant, and the usual or best way of preparing the same for the table? D. L.—*Caledonia, N. Y.*

CAN any of your correspondents tell me what will prevent the malady which attacks young pigs when running in clover fields in wet summer weather? E. F. H.—*Exchange, Ky.*

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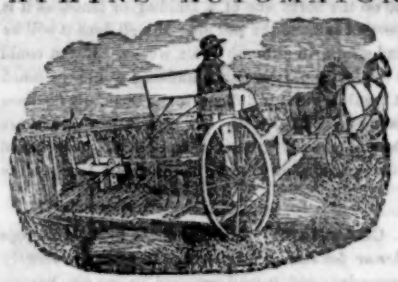

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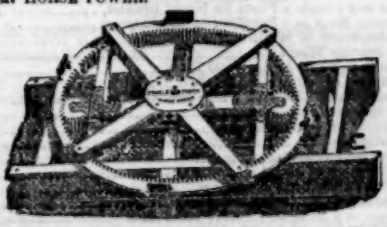

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B. P. JOHNSON,
AGRICULTURAL ROOMS, Albany, March 2, 1857. Secretary.
April 1.—3t.

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